Edited by
Helen O'Neill and John Toye
for the Development Studies Association

A World without Famine?

New Approaches to Aid and Development

A WORLD WITHOUT FAMINE?

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A World without Famine?

New Approaches to Aid and Development

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List of Abbreviations

ACC/SCN	Administration Committee on Coordination/ Sub-Committee on Nutrition
AFC	Agricultural Finance Corporation
AFH	artificial fish habitats
AGETIP	Agence d'Exécution des Travaux d'Intérêt Public
Agritex	Zimbabwean Agricultural Extension Agency
AMA	Agricultural Marketing Authority
AMS	Aggregate Measurement of Support
APSO	Agency for Personal Service Overseas
AR	artificial reef
ARP	Agricultural Recovery Programme
BAP	bilateral aid programme
BDO	Block Development Officer
BPP	British Parliamentary Papers
BWIs	Bretton Woods Institutions
CAP	Common Agricultural Policy
CFA	Committee on Food Aid Policies and Programmes
CFU	Commercial Farmers' Union
CMB	Cotton Marketing Board
COA	Committee on Agriculture
COP	Conference of the Parties to the Biodiversity Convention
CSD	Consultative Subcommittee on Surplus Disposal
CSFP	Children's Supplementary Feeding Programme
DAC	Development Assistance Committee of the OECD
DHA	UN Department of Humanitarian Affairs
DHS	*Demographic and Health Survey*
DIRE	Délégation á l'Insertion á la Réinsertion at l'Emploi
DRDA	District Rural Development Agency
DSA	Development Studies Association
DSW	Department of Social Welfare
EC	European Community
ECA	Economic Commission for Africa
ECM	error correction model
ECOSOC	Economic and Social Council of the United Nations
EEZ	exclusive economic zone
EGS	Employment Guarantee Scheme

EHA	emergency humanitarian assistance
ERP	Economic Recovery Programme
ERS	Export Retention Scheme
ESAP	economic and structural adjustment programme
ESF	Emergency Social Fund
EU	European Union
FAO	Food and Agriculture Organisation
FFW	food-for-work
FOB	free on board
FOSIS	Fund for Solidarity and Social Investment
FSU	former Soviet Union
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GEF	Global Environment Facility
GIS	geographical information system
GMB	Grain Marketing Board
GNP	gross national product
GOZ	Government of Zimbabwe
IBRD	International Bank for Reconstruction and Development
ICLARM	International Centre for Living Aquatic Resources Management
ICRC	International Committee of the Red Cross
IDA	International Development Association
IDP	internally displaced people
IEFR	International Emergency Food Reserve
IFAD	International Fund for Agricultural Development
IFC	Indian Famine Commission
IFCRF	Indian Famine Charitable Relief Fund
IFI	international financial institution
IFPRI	International Food Policy Research Institute
IGC	International Grains Council
ILO	International Labour Organisation
IMF	International Monetary Fund
IRA	Immediate Response Account
ISO	International Standards Organisation
IT	Intermediate Technology
ITDG	Intermediate Technology Development Group
IUP	Irish Universities Press
IUSSP	International Union for Social Scientific Progress
JCTR	Jesuit Centre for Theological Reflection

LDCs	less/least developed countries
MEGS	Maharashtra Employment Guarantee Scheme
MMD	Movement for Multiparty Democracy
MPU	Micro-Projects Unit
NAFTA	North Atlantic Free Trade Area
NCHS	National Center for Health Statistics
NEP	New Economic Policy
NFIDCs	net food-importing developing countries
NGO	non-governmental organisation
NR	natural region
NREP	National Rural Employment Programme
NS	*National System of Political Economy*
OBM	outboard motor
ODA	Official Development Assistance
ODA	Overseas Development Administration
ODI	Overseas Development Institute
OECD	Organisation for Economic Co-operation and Development
OLS	ordinary least squares
PAIT	Programa de Apoyo al Ingreso Temporal
PAM	Programme Against Malnutrition
PAMPER	Programme of Action to Maximise People's Economic Returns
PAMSCAD	Programme of Actions to Mitigate the Social Costs of Adjustment
PAP	poverty alleviation programme
PAPSCA	Programme to Alleviate Poverty and the Social Costs of Adjustment
PCMU	PAPSCA Co-ordination and Monitoring Unit
PCO	Programme for Community Organisation
PDS	public distribution system
PIU	Project Implementation Unit
PRI	Institutional Revolutionary Party
PRONASOL	Programme of National Solidarity
PWD	public works department
R&D	research and development
RDP	Rehabilitation and Development Plan
RLEGP	Rural Landless Employment Guarantee Programme
RPWP	rural public works programme
SADC	Southern African Development Community
SAP	structural adjustment programme

SAREC	Swedish Agency for Research Co-operation with Developing Countries
SCs	Southern countries
SDA	Social Dimensions of Adjustment
SDF	Social Development Fund
SIFFS	South Indian Federation of Fishermen Societies
SSA	Sub-Saharan Africa
UK	United Kingdom
UMR	Usual Marketing Requirement
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UR	Uruguay Round
US/USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USNRC	United States National Research Council
UV	ultra-violet
WDR	World Development Report
WFC	World Food Council
WFP	World Food Programme
WHO	World Health Organisation
WPP	woven polypropylene
WTO	World Trade Organisation

1 Introduction

The 1995 annual conference of the Development Studies Association (DSA) was hosted by the Centre for Development Studies in University College Dublin. The theme of the conference was famine. This theme was chosen for two reasons. First, because 1995 marked the 150th anniversary of the start of what became known as the Great Irish Famine – a cataclysmic event in that country's history and one of the last of the big famines in European experience. The second reason why the theme was chosen was because the spectre of famine continues to haunt many parts of the developing world, especially Africa. Famines are part of a wider growth in the number of complex emergencies, both natural and man-made, that are afflicting the lives of so many poor people in the late 1990s.

The conference was officially opened by the President of Ireland, Mary Robinson, who made a moving speech at the opening plenary session about her own visits to refugee camps in Somalia and Rwanda. The Minister of State at the Department of Foreign Affairs, Joan Burton, who had spent a number of years lecturing in the University of Dar es Salaam before entering politics, spoke about the Irish aid programme at the second plenary. The Development Co-operation Division of the Department of Foreign Affairs provided substantial funding to the conference. The organisers and the editors of this book wish to acknowledge all these generous contributions.

Famine is a process that has to be understood in the context of the more general concepts of food security and insecurity.[1]

Food security as a concept emerged after the United Nations Food and Agriculture Organisation (FAO) World Food Conference in 1974. It is centred around two sub-concepts: food availability and food entitlement. Food availability refers to the supply of food available at international, national or local levels. Among others, the question arises: can food production keep pace with un-checked population growth? It is nearly two hundred years since Robert Malthus answered in the negative: he claimed that the gap between food supply and the needs of a population growing at its natural potential rate would widen over time, with famine acting as one of the adjustment mechanisms.

The concept of food entitlement relates to the command over food by individuals and households. It suggests that people do not tend to starve because of an insufficient supply of food but because they have an insufficient command over or access to the available supply. Sen has identified four types of entitlement that individuals or households in a market economy may possess or acquire: trade-based entitlement; production-based entitlement; own-labour entitlement; and inheritance or transfer entitlement (Sen, 1980–1). Thus food security in an individual region or in the world as a whole reflects the ability of food-deficit countries, or regions or households within them, to meet target consumption levels on a year-to-year basis (Valdès (1981), p. 2; and Bigman (1985) p. 6, cited in Salih, 1995).

The most widely-used definition of food security is that of the World Bank (1986, p.1): 'access by all people at all times to enough food for an active, healthy life'. The term 'access' here is inclusive of both the demand side (entitlement) and the supply side (availability). The Sub-Committee on Nutrition of the United Nations Administration Committee on Coordination (ACC/SCN) in defining food security at household level brings in further dimensions: 'A household is food secure when it has access to the food needed for a healthy life for all its members (adequate in terms of quality, quantity, safety and culturally acceptable) and when it is not at undue risk of losing such access' (ACC/SCN (1991), p. 80).

Food insecurity results from a lack of access to enough food. There are two kinds of food insecurity: transitory and chronic. Transitory food insecurity is a temporary decline in a household's access to enough food. It can result from instability in food prices, food production, or household income. In its worst form it results in famine. Chronic food insecurity is a continuously inadequate diet caused by the inability to acquire food. It affects households that persistently lack the ability either to buy enough food or to produce their own (World Bank (1986), p. 1). Hence, poverty is considered to be the root cause of chronic food insecurity.

Although famine can result from transitory food insecurity, it is frequently associated with large and persistent food shortages (Chen and Kates (1994), p. 194 in Salih, 1995). And, of course, it is the chronically food insecure who are mainly affected by transitory food insecurity problems. People can also experience famine because of their inability to have access to food even when food is available in their area (Dreze and Sen (1989), p. 34 in Salih, 1995).

Famines are the most extreme form of transitory food insecurity. They can result from several causes: wars, floods, crop failures, the loss of purchasing power by groups of households, and market failures, including high food prices (World Bank (1986); Sen (1980); Devereux (1993)). A decline in the availability of food is not necessarily a primary cause of famine (Sen, 1980–1). Drought, floods, wars, grain hoarding and other disruptions to food supplies 'trigger' subsistence crises by threatening a population's access to food. These are the immediate causes of famine. But these triggers lead to famine only where particular groups of people are already vulnerable to this. Such groups would include small-scale subsistence farmers, landless agricultural workers, other workers affected by a drop in real incomes in the famine regions, pastoralists, and female-headed households. Vulnerability to famine implies processes rather than events. Underlying processes 'set people up' for natural disasters or economic crises. They cause vulnerability, and the reduction of vulnerability is the real challenge for those seeking to eradicate famine (Devereux (1993), p. 182).

Thus, famines are not 'crises of mass starvation' as the dictionary defines them. Empirical evidence has shown that famines have occurred in situations where there were no food shortages (Bangladesh, 1974); where excess mortality was caused by disease, not starvation (Darfur, 1984); and where no excess mortality occurred (Sahel, 1972–4). Walker (1989), cited in Devereux (1993, p. 181) defines famine as 'a socio-economic process which causes the accelerated destitution of the most vulnerable, marginal and least powerful groups in a community to a point where they can no longer, as a group, maintain a sustainable livelihood'.

Devereux sums up the determinants of vulnerability to famine as follows: risk of fluctuations in incomes or sources of food production (unreliability of harvests in semi-arid, drought-prone areas); dependence on a single source of income or food; absence of latent entitlements (although the 'moral economy' social security and employment guarantee schemes can provide a safety net against entitlement collapse); disenfranchisement (exclusion of people from political processes and economic growth). A powerful, undemocratic government may lack the political will to assist the powerless; it may also repress the media so that the poor have no voice and discourage development projects or even refuse food aid during famines. War and conflicts can undermine all aspects of a food system, including production, storage and distribution.

A number of indicators have been developed to explain and measure the multiple dimensions of food insecurity. Salih (1995, p. 6) suggests that food security at the continental and sub-regional levels can be measured by comparing regional nutritional requirements in per capita dietary calories with the sufficiency of available food supply. The ultimate goal is to meet the food requirements of the population, assuming equal access by all sub-regions and social classes to the available supply over time. At the country level, the most widely used indicators are quantities of available food compared with needs and net import requirements compared with capacity to import (Braun *et al.* (1992) p. 7). At the household level, food security is measured by actual (minimal) dietary intake of all household members, using standard household expenditure and income surveys (Salih, 1995). However, household surveys tend to measure the existing situation during the survey period only and not the changes in socioeconomic and demographic variables. The levels of and changes in these variables should be updated continuously in order to monitor food security (Braun *et al.* (1992) p. 7; and Salih, 1995). Individual food security can be measured by a food poverty indicator and by anthropometric data. The food poverty indicator (sometimes referred to as household access) is the number of individuals living in households whose access to food (measured by income, expenditures, or consumption) is sufficient to provide a dietary intake adequate for growth, activity and good health (Ali (1993) p. 5 and Chen and Kates (1994) p. 195 in Salih (1995) p. 7). The second indicator (actual body measurements or anthropometry) is related to nutritional status at the individual level. Thus, individual food security implies an intake of food and absorption of nutrients sufficient to meet differential individual needs for activity, health, growth and development. The level of need is determined by an individual's age, body size, health status and level of physical activity (Chen and Kates (1994) p. 193 in Salih (1995) p. 7).

Empirical evidence suggests that undernutrition (measured by the food poverty indicator) has increased in Africa, while it has declined significantly in Asia and Latin America (Ali (1993) p. 10; Chen and Kates (1994) p. 196; Saran (1994) p. 71; Salih, 1995). Increased food insecurity in Africa has been associated with low per capita food availability and high fluctuations in food supply. Africa is the only region in the world where food production has had a negative per capita growth rate since the early 1960s. By contrast, food output per head has increased steadily in developing countries as a whole and in particular in Latin America and Asia over the past three decades.

Poorer countries have to import food (both commercially and through food aid) to offset the shortfall in domestic food production. The FAO has attempted to assess the implications of the Uruguay Round of multilateral trade negotiations for food security up to the year 2000. It suggests that an increase of 5–10 per cent in world prices can be expected in temperate zone products as a result of reductions in high levels of producer support prices and their consequential effects on production. Concern has also been expressed that the reduction in price supports could lead to a fall in publicly-held stocks of agricultural commodities (Saran (1995) p. 73). All in all, while significant quantities of food aid are likely to be needed for the foreseeable future, the amounts available may be neither stable in the short run nor sustainable in the long run. In the first half of 1996, world grain prices soared, with new record prices for wheat and maize being recorded and stocks expected to fall to their lowest levels since 1948. The FAO has suggested that these record prices would add about US$3 billion to the food bill for poorer countries during 1996 (*Financial Times*, 26 April 1996).

Against this background of a continuing threat of famine in some parts of the developing world and anxieties about the future ability of the international community to respond effectively to famines, the 1995 DSA Conference debated a series of issues. What can be learnt about present-day famines from reviewing the experience of the Great Irish Famine and nineteenth-century Indian famines? Do famines have long-term effects, or are they tragic, but temporary, episodes? What can be done to improve responses to drought-induced food insecurity in Sub-Saharan Africa? More generally, can aid practices in famine and other complex emergencies be improved? Finally, are there specific innovations in national policies that will reduce the threat of famine? All these issues, short-term and long-term, both internally in vulnerable developing countries and globally in aid programmes, as well as the problem of how the interface between them can be better managed, formed the core of the debate on famine at the conference. The nineteen chapters in this volume (out of around 100 papers presented at the conference) represent very well the substance of that debate.

The introductory paper, by Nigel Dower, challenges us at a moral level. He asks a simple but fundamental question: whether it is our duty to seek to achieve a world without hunger. And he answers it with a resounding affirmative. Indeed, he argues that our duty to prevent famines from occurring (where possible) and (where not) to

prevent them from continuing derives from a more general obligation to prevent the continuation of *hunger and extreme poverty*. This argument rejects the view that the extraordinary, dramatic and occasional character of famines creates a separate and different moral basis for outsiders' actions from that attaching to the commonplace and all-too-familiar occurrence of hunger and extreme poverty.

Following Peter Singer, Dower appeals to the principle that those who can prevent natural evils without sacrificing anything of comparable moral importance ought morally to do so. But he softens the implication of radical sacrifice in this principle by interpreting it in a collective and not in a purely individual context. This modified principle is then related to Henry Shue's assertion of three socially basic rights, to subsistence, security and liberty, as the source of the correlative duties.

Objections to the argument are then considered. Robert Nozick, for example, denies any duty to help others on the ground that it is inconsistent with liberty. But this denial is rejected once the nature of reciprocity in the Kantian categorical imperative is correctly understood. Others claim that the duty of benevolence cannot be applied on a global scale. One rebuttal is to stress the empirical existence of values that *are* shared globally. But it can be argued more fundamentally that global obligations are established by a valid moral theory, and not by social facts. Finally, although some forms of aid are counter-productive, the view that aid is inherently so cannot be sustained. Once these objections fall away, the case, not just for emergency assistance, but also for appropriate development assistance to reduce extreme hunger and poverty is established.

Following the introductory chapter by Dower, the book is divided into five parts. The first part contains five chapters (those of Cormac Ó Gráda, Patrick McGregor, Michael Yaffey, David Hall-Mathews, and Jocelyn Kynch) that examine famines from an historical perspective. The first of these, Ó Gráda's, asks whether the Great Irish Famine was like modern famines and whether there are any lessons to be learned from it for policy-makers today.

Ó Gráda begins by examining the characteristics of the Great Irish Famine, which began in 1845 and continued until 1850. While he acknowledges that there are common factors, he finds many differences between it and twentieth-century famines in developing countries and concludes that there are few lessons for today's famines, that can be drawn from the Irish case. The first difference relates to excess mortality. This was much higher in 1840s Ireland, where about one

million people died as a direct result of the potato failures, than in today's famines in Africa – except where these were caused by civil wars, in which case the death tolls are comparable. He notes a fact that has become apparent in many modern-day cases: relatively few died of literal starvation in the Great Irish Famine. Dysentery, typhus, typhoid fever and other infectious diseases were the main killers. Ó Gráda asks whether better medical knowledge might have made a difference. He concludes, on the basis of evidence from modern famines, that improved medical technology on its own is not enough to eliminate mass mortality, and is a poor substitute for plenty of healthy food, clean clothes, proper housing, and sanitation. However, 'given food, medicine can achieve much'. Another difference between the Ireland of the 1840s and many famine-affected areas of Africa today was that Ireland faced no civil wars, major unrest or associated disrupted communications at the time of its great famine. This is in stark contrast to the situations that have faced the poor in Biafra, Ethiopia, Somalia, Mozambique and Rwanda in more recent times.

Ó Gráda also examines the evolution of attitudes over the past 150 years to what Dower had described as 'the ethical imperative' of the rich to help the poor overcome their poverty. The *Economist* newspaper today, he states, does not dismiss calls for famine relief in Africa with the disclaimer that 'it is no man's business to provide for another' nor would any leading economist calmly defend policies that 'reduce the poor to starvation' as Nassau Senior did. However, Ó Gráda also points to the much greater income gaps that exist today between famine-affected areas in Africa and the rich countries in the North compared with the relatively small differences in estimated income levels between Ireland and its neighbours, especially Britain, at the time of its great famine. Thus he asks: 'does this not make the persistence of famines in the Third World in the 1980s and 1990s a greater scandal than its presence in Ireland in the 1840s?'.

He also comments on Amartya Sen's entitlements theory. To be sure there were exports of grain out of Ireland during the famine but he stresses that there was also still a huge gap left in food requirements because of the failure of the potato, upon which there was a unique dependence on the part of the poor. The Irish famine, he states, was also 'a classic case of food shortage'. Mass emigration provided 'a welcome safety-valve' for the Irish poor in the 1840s but this is not available to famine victims in Africa today. Because of this and the many other differences between the Great Irish Famine and African

famines today, we need to be cautious in drawing policy lessons from the former for the latter.

McGregor's chapter develops a simple general equilibrium model of famine (in the spirit of Sen's entitlement approach) to analyse the tragedy that developed in Ireland after 1845 when the fungus *Phytophtora infestans* hit the potato crop. He sets out to answer three questions. First, why did the system of relief works, which at their peak employed three-quarters of a million men and women, attract so many of those whom the officials considered not to be destitute? Second, why did these works fail so utterly in their objective? And, third, given that there was an understandably sharp decline in crop production but an accompanying remarkable expansion of cattle and sheep, what was the economic rationale behind the latter?

The general equilibrium model of the rural economy advanced in McGregor's chapter is built around three markets: those for food, labour and land. Its presentation is followed by a detailed analysis of the impact of the potato blight on these markets, concentrating on the labour market. The model is then developed to examine the consequences for the labour market of the provision of public works.

In reply to the first of his questions, McGregor concludes that, at low levels of endowment, the wage rate at which it was rational for a worker to participate in the labour market (and be physically capable of doing so) declined with assets, so if a destitute man could work it was in the interest of the better-off man to work also. The reason why the public works failed was because the attempt to use the wage as a screening device was flawed. The surge of applicants was interpreted as indicating generosity of the wage rate, with the result that the poorest could not survive on the earnings they were capable of making. As to the increase in livestock just as tillage was collapsing, the model predicts that the loss of endowments will increase the factor price ratio against labour. Production technique in pre-famine Ireland was highly labour-intensive, but with considerable possibilities for factor substitution, which the livestock change illustrated.

General conditions in pre-famine Ireland played a part in the evolution of Friedrich List's thinking, according to Michael Yaffey's chapter. In turn, his famous *National System of Political Economy* influenced some Irish thinkers. List, who was born in 1789 and died during the second year of the Great Irish Famine, is probably best known as the principal architect of the *Zollverein* and an arch-critic, from a nationalist perspective, of the economics of Adam Smith. The wealth of nations was for List a secondary objective to their independ-

ence and power, which he thought guaranteed not only wealth, but also civilisation and good governance.

List classed Ireland with China, as a country that had failed to defend its national interests against the more advanced economy and stronger power of England. The inadequately productive smallholder system of Irish agriculture he regarded as 'crippled', because Ireland could not develop its own manufacturing industry with tariff protection. In these circumstances, all the productive efforts of the peasants served only to extend what he called 'the potato economy'. Politically, the effect was to prevent any assertion of civic rights and to leave administration in the hands of 'an overweening aristocracy of officials'. Pro-Irish writers in America probably helped to shape List's views on the condition of Ireland.

Listian ideas were popular in Ireland before List's personal contribution was recognised. That came later, after the success of the *Zollverein* and German unification. Through Arthur Griffith, List was credited with a nationalist economic strategy that in turn influenced the Sinn Fein (Ourselves) movement. List did anticipate some possible routes to national economic development even for a small country like Ireland. But, in addition to List himself, others also contributed to the development of Listian ideas.

In his comments on the negative attitudes to famine relief that prevailed in Ireland in the 1840s, Ó Gráda also referred to the similarity of attitudes in India later in the century. He remarks that the machinery necessary to eradicate famine was available long before it was put to use, and suggests that this was because those in power believed that 'India would have been pauperised, its work ethos shattered, and an importunate populace of government dependents would have been created'. This fear of creating dependence and its consequences for famine relief programmes is the focus of Hall-Matthews' chapter on the Indian Famine Codes that were drafted in 1880. These aimed to discourage dependency among relief recipients and to provide relief without distorting food grain markets, an approach that favoured minimal intervention. The Codes thus ignored the experience of the generous and successful famine relief in Bihar in 1874, organised by Sir Richard Temple, who imported and distributed at market prices 450,000 tonnes of grain and prevented any excess mortality. It relied more on the less successful, less generous and less interventionist methods of the Bombay famine relief campaign of 1876–8, which Temple, out of loyalty to his superiors, himself also retrospectively justified.

Hall-Matthews asks whether Temple was inconsistent in his justification of two very different famine relief policies. The circumstances of Bihar were different from Bombay, in that in the former case relief was given to those who still retained, and so could return to, their own land holdings. It was not the level of relief that threatened to create dependency, but the fact that the relief applicants in the Bombay case were already destitute. But the rhetoric of dependency, based on assumed moral characteristics of the agricultural population, was used to mask other fundamental concerns of the Government of India, especially to limit its expenditure. The author suggests that while *laissez-faire* to allow the market to work was a good principle, it was relied on exclusively, even in inappropriate famine conditions.

Transport that could be used to move grain was little developed in Bombay, as evidenced by the use of relief works to build railways. The possibility of sudden falls in the grain price also deterred individual private traders from trying to supply remote areas. Over-simple economic theories were used to serve the conjunctural interests of the state rather than the starving. The state itself, however, is not monolithic, and it was the autocratic personality of Sir John Strachey and the disciplined loyalty of Temple that caused the Bihar 1874 paradigm of famine relief to be written out of the Indian Famine Codes.

Kynch (with Maureen Sibbons) examines the somewhat later Indian famine that occurred in Bengal (that is, modern West Bengal, Bihar, Orissa and Bangladesh) in 1896–7, and in particular the effects of the relief works on women workers. This famine was met by government relief operations that were subsequently proclaimed as a success, both in saving lives and in being 'economical and efficient'. A favourable comparison was made with the relief of the 1873–4 famine, which was criticised for excessive liberality. But the payments system that was chosen for the relief works, namely piece-work with a maximum wage, did have a negative effect on women's participation and their wages. It was chosen because it was seen to have other advantages, such as providing a test of need, lower cost, avoidance of fraud, and incentive to hard work, and because it was believed that men suffered more than women in famines.

Large numbers of women presented themselves for relief work. Statistically, neither the average wage paid, nor the outturn of the works was significantly affected by the gender composition of the workers. But the system allowed men to crowd the women out of the relief gangs, while the famine administrators argued that the men could earn enough to support women 'dependants' in accordance with

Indian custom. Women could work in familial gangs or do home-based work, but this was no help for widows or abandoned women.

It is questionable whether the economy achieved was compatible with good relief practices. It was also contrary to the central tenet of Indian famine policy that employment should be available to those unused to labour, such as needy women. No association is to be found between the use of the piece-work system and low administration costs on the works. Thus some of its claimed advantages cannot be verified.

The second part of this book examines the possible long-term effects of famines on endemic poverty in famine-affected areas. It contains one long chapter by Siddiq Osmani. As an expositional device, he classifies these effects under four hypotheses – one Malthusian and three post-Malthusian. In the Malthusian perspective, as noted by some of the earlier chapters, famines are not seen as a cause of poverty but rather as an adjustment mechanism that brings temporary relief to the survivors and gives them an opportunity to raise their living standards beyond the level of bare biological survival. Osmani reminds us, however, that Robert Malthus did not see famine as an inevitable outcome of the unequal contest between population and food. There were several other adjustment mechanisms at work, and famine was supposed to strike only as the last resort. The one adjustment mechanism he failed to foresee – namely sustained improvement in the productivity of agriculture – was the one that, in Osmani's words, 'was eventually to put the spectre of famine to rest in the Western world'.

But Malthus visualised other mechanisms that could in principle keep famines at bay. Some of these were malign – such as war and pestilence which, together with famine, he described as positive checks. There was also a benign mechanism – the so-called preventive check, whereby people adjusted their fertility to maintain a conventional standard of living. It was only in cases where preventive checks, if any, and all other positive checks failed to restore balance that famines would occur. Osmani makes the point that Malthus attached great importance to institutions (including age, length of marriage and property rights) in determining whether preventive checks would prevail and thereby allow a population to live a reasonable life. Other ways in which famine can be seen to raise the level of living of those who survive include reductions in fertility and mortality rates in the post-famine period as well as productivity-enhancing changes in the population age structure, because famine takes a heavier toll of the very young and the very old.

The second hypothesis Osmani examines in his chapter is that, far from acting as an escape valve from poverty, famine may actually perpetuate it. This notion is based on two specific views on the economic and demographic history of the Western world. One of them holds that famines were chiefly responsible for the high level of mortality in pre-industrial Europe; and the other – the so-called classical version of the demographic transition theory – suggests that it was the high level of mortality that accounted for the high level of fertility that obtained. As Osmani explains, the combination of these two views implies that famines were ultimately responsible for keeping fertility high and thus dissipating any productivity gains and condemning a society to secular stagnation.

Osmani claims that the results of recent research have shown, however, that there are serious problems with both of the above propositions. Famine is no longer seen as having been responsible for keeping mortality high in the pre-industrial world, nor is high mortality seen to be the main factor behind high fertility. The revisionist views, according to him, coupled with newly-emerging evidence on the demographic impacts of past and present-day famines, would seem to suggest that famine does not matter very much in the long run – the third hypothesis he examines. However, what he calls 'this rather comforting view' is based mainly on the direct demographic consequences of famine. It does not survive a deeper analysis (the fourth hypothesis, that famine matters in the long run) which, on the contrary, shows that short-run demographic and non-demographic effects of famine may have some irreversible consequences for the individual, the family, and society as a whole.

These irreversibilities pertain to the endowment set of the household, the long-term nutritional status of the individual, the structure of the family, and the structure of the moral economy. Osmani here draws on the results of research on twentieth-century famines. The coping strategies poor people adopt tend to go through a number of identifiable stages. First, they try to augment current income, drawing upon the conventional insurance mechanisms of the extended family and community (the 'moral economy') and selling off the unproductive assets that were held primarily as a store of value. If all these actions still fail to maintain conventional levels of consumption, people would 'choose to starve' and allow themselves to become undernourished rather than sell off their productive assets. However, when the state of undernourishment becomes too severe, they begin to sell off productive assets. The final stage arrives when a household

becomes totally destitute and cannot survive even after selling off all their assets. As Osmani puts it: 'Migration and congregation at refugee camps then remain the final option.' He claims that most of these irreversibilities are seen to exert a deleterious influence on the long-term living standards of the people. This tendency is likely to be further aggravated by the long-term effect of famine on fertility behaviour, since a famine-prone society is also likely to be a high-fertility society.

Osmani concludes his chapter by examining evidence about the impact of the Great Irish Famine on long-term living standards in Ireland. In particular, he wonders if it can be described as a case of benign irreversibility because it set in motion an irreversible trend of emigration which provided higher incomes not only for those who went to Britain and America but also for those who remained at home. However, his final conclusion is a sombre one. Whether the Irish case was one of benign irreversibility or not, it can give little comfort to today's developing countries that are prone to famine. As Ó Gráda also pointed out, for the poor of today's developing countries, unlike the nineteenth-century Irish, the scope for mass international migration is utterly restricted: 'The malignant irreversibilities discussed earlier are much more relevant for them, which means that the effect of famines on the long-term evolution of their living standards can hardly be anything other than harmful.'

The third section of this book contains four chapters (by Edward Clay, Ibrahim Elbadawi, Charlotte Benson and Bill Kinsey) that consider current threats to food security especially those created by drought. Clay describes drought as 'the major natural hazard in Sub-Saharan Africa' and sets out to examine its consequences for economic development in the region. His assumption is that the human and economic damage caused by drought can be considerably reduced, if not entirely prevented, by better short-term and medium-term responses on the aid side, and of drought prevention and mitigation inside Sub-Saharan African (SSA) countries.

The chapter begins with a short restatement of the facts of Africa's vulnerability to drought. This is followed by a presentation of the theoretical perspective that focuses on the changing economic developmental dimension of that vulnerability. It then lists the factors that shape the economic impacts of drought. They include: the level of development ('a more complex economy, such as Zimbabwe, is likely to suffer more severe economic impacts from drought shock than a simple economy such as that of Ethiopia'); income distribution;

management of water resources; movements in international commodity prices; the structure of the agricultural sector and the financial sector; the existing policy framework; and the level of external debt.

Clay examines short-term responses to drought crises and drought mitigation efforts, and concludes that existing aid modalities are unsatisfactory. Recent experiences of drought-preparedness planning suggest that post-disaster recovery, including seed supply and livestock rehabilitation, is generally poorly handled. Moreover, emergency water-supply interventions are widely ineffective and not properly integrated with health measures; credit mechanisms are often not in place to assist affected producers. Rural works and food-for-work (FFW) programmes have a patchy record in SSA, but an important potential role in highly drought-vulnerable areas and also as part of anti-recessionary measures; and drought mitigation should be incorporated into longer-term programmes, including FFW and income and food transfer activities.

Clay argues that, by addressing the economic consequences of drought effectively, the humanitarian problem becomes better defined and more manageable. The international response to a drought should include maximising the grant element in assistance, making greater use of rapidly disbursing instruments, and improving the disbursement performance. But he ends with a caveat. The impacts of droughts vary among drought-prone areas because of differences in economic structures and economic restructuring programmes and, at the end of the day, each crisis is a new disaster situation. He sums up the challenge for policy-makers as follows: 'Preparedness means being ready for an unprecedented situation.'

In a closely-related chapter, Elbadawi focuses on the interaction between drought and structural adjustment which, he argues, is important in the debate on the effectiveness of structural adjustment programmes (SAPs) and development prospects in SSA. Drought imposes a major constraint on Africa's prospects for achieving successful economic reforms. Elbadawi argues that the conditions which tend to exacerbate the negative impacts of drought on SSA economies relative to other developing countries also account for the disappointing results from SAPs – a point also underlined in the chapter by Charlotte Benson, that follows.

Elbadawi suggests that the interactions between drought and structural adjustment should be an important element in the debate on the effectiveness of SAPs in drought-prone countries and that the design of SAPs for them should explicitly take account of drought as a

agroclimatic, agricultural, economic and sociopolitical reality in SSA countries and should include within them a long-term drought mitigation strategy.

Benson's paper also examines the impact of droughts on an economy and its individual sectors. Like Clay and Elbadawi, she concludes that relatively more developed economies in SSA may be more vulnerable than are the simpler economies to the negative impacts of droughts. She examines the case of Zimbabwe during the period 1980–93 and focuses particularly on the 1991–2 drought, during which a SAP was in its early stages. The relatively high level of development of industry (which is linked to agriculture) and of the financial sector, together with the SAP, which in any case tended to produce recession, exacerbated the negative impact of the drought on the economy. However, she suggests that in the future this vulnerability may be lessened as a consequence of successful economic restructuring and liberalisation.

Kinsey's paper also looks at Zimbabwe. It reports on a long-term (1983–95) study of economic and social adaptation of rural households to what he describes as the largest land resettlement programme in Africa, namely the resettlement of families from the overcrowded communal areas on to uniform smallholdings carved out of the former large-scale commercial farms.

Kinsey argues that although the programme was well planned, implementation was frequently poorly co-ordinated and shortsighted. Basic physical and socioeconomic infrastructures were poor, and agricultural management skills were weak, all leading to great stress for households. This stress, in turn, was exacerbated by the droughts of the early 1980s, 1987 and (the worst this century) the drought of 1992. The nutritional status of young children was tracked as a measure of adaptation. The chapter is rather pessimistic in its conclusion. Kinsey questions the ability of the Zimbabwean government to sustain the post-independence gains in social and economic programmes in the face of repeated droughts and the impact of the SAP.

The fourth part of this book looks at aid policies and strategies. It contains three chapters: by John Shaw and Hans Singer, who consider the future of food aid in the wake of the conclusion of the Uruguay Round and the establishment of the World Trade Organisation (WTO); Kunibert Raffer who contrasts the aid visions of the United Nations Development Programme (UNDP) and the Development Assistance Committee of the Organisation for Economic

Co-operation and Development (DAC/OECD); and Helen O'Neill, who examines recent developments in aid to famines and other complex emergencies, focusing particularly on Irish aid.

According to Shaw and Singer, the conclusion of the Uruguay Round (UR) of multilateral trade negotiations, the signing and ratification of the Final Act, and the setting up of the WTO provide a major opportunity for establishing a new food aid regime within a liberalising global economy. The UR will be only one of a number of factors affecting world food production, trade, prices and aid. The Final Act, they state, falls far short of the full liberalisation of trade originally envisaged. Many factors, some not directly addressed in the UR, will have significant effects on food supply, demand and price relationships. Nevertheless, a major change has been brought about by the UR in the way food markets are viewed, in the rules under which countries must operate their national food policies, and the opportunities for effective use of food aid. The chapter provides details of the food aid provisions of the Final Act, reviews food aid requirements in relation to future levels of food aid, raises questions about the definition of food aid, and makes proposals for a future food aid regime.

The references to food aid in the Final Act establish two major elements for a future food aid regime: (i) an adequate level of food aid to meet the needs of least-developed countries and net food-importing developing countries; and (ii) an appropriate mechanism to ensure that food aid does not circumvent disciplines on export subsidies. The indications are that food aid will be required on an increasing scale during the 1990s. Nevertheless, according to the authors, the food aid provisions of the Final Act raise several basic questions concerning a post-UR food aid regime. No indication is given as to the level at which food aid should continue to be provided, whether that level should go beyond status quo demand to include the need to raise nutritional levels in developing countries above their current status, or what proportion of food aid should be provided in grant form. Nor does it address the issue of ensuring reliability of its supply, or the proportion that should be supplied multilaterally, or the most appropriate forum for reviewing its distribution or the way in which a food aid regime should operate.

The establishment of the WTO could provide an institutional frame work for food aid that has been lacking to date because of the multiplicity of bodies that have been involved in its delivery. Shaw and Singer emphasise the importance of a safety net for food-importing

developing countries as is envisaged in the Final Act. Such a safety net could either imply financial assistance, when it would involve the Bretton Woods institutions; or technical assistance to increase agricultural productivity, which would involve FAO; or food aid, when the World Food Programme would be involved; or be trade-related, when it would involve discussions within the WTO; or be generally related to global governance, when it would involve the United Nations. According to Shaw and Singer, a mixture of all these solutions would most probably be called into play.

Raffer's paper contrasts the aid visions of the UNDP with its focus on direct help to the poor through its so-called '20:20 compact' and that of the DAC/OECD which, he claims, is merely a variation on the old 'trickle-down' approach and thus acts as an argument against direct targeting of the poor in aid programmes.

The term 20:20 derives from the suggestion that developing countries should devote at least 20 per cent of their budgets to expenditures that are designed to meet human needs, while donors should earmark 20 per cent of their aid budgets for these same priorities. The compact's most important targets include: elimination of severe malnutrition; universal primary education and primary health care; halving adult illiteracy rates; availability of family planning services for all couples who demand them; and credit for all, to ensure self-employment opportunities.

Raffer analyses the debate that opened up after the UNDP first published its proposal for a 20:20 compact on human development in 1994 and he describes the differences between the two organisations as well as their respective theoretical influences. His chapter concludes on a sombre note. He claims that it is unlikely that the US$30–40 bn a year demanded by the UNDP for human priorities will be forthcoming, even if this could be achieved without additional money. The World Bank has calculated that redirecting only about 2 per cent of the world's grain output to 'the mouths that need it' would be sufficient to eliminate malnutrition, one of the main targets on the compact's list. 'Unfortunately,' concludes Raffer, 'even this small amount is unlikely to be financed.'

O'Neill examines the roles the official Irish programme (Irish Aid) and Irish NGOs have played in the relief of famine and other complex emergencies. She shows that although aid budgets of DAC members have been roughly stable in recent years and are expected to remain so, the number of man-made and natural disasters has been increasing sharply, and that DAC aid expenditure on emergency and disaster

relief has tripled twice, between 1982/83 and 1990, and again between 1990 and 1994.

Ireland's own official aid programme is still expanding and is planned to reach 0.4 per cent of GNP by 1997 (well above the DAC average), with growth of bilateral aid outpacing that of the multilateral side. Irish Aid's spending on famines and other emergencies as well as on rehabilitation has grown very significantly when compared with spending on long-term sustainable development, a trend that will need continuous monitoring. As a share of bilateral aid, emergency and rehabilitation spending rose considerably in the 1990s compared with the 1980s, and is now greater than the DAC average.

Aid from Ireland to humanitarian relief totaled IR£26 million in the period 1984/5; nearly 60 per cent of this was delivered through Irish NGOs. Grants to individual NGOs are in line with their relative sizes, Concern being the largest NGO (and the recipient of the largest grants from Irish Aid), followed by Trocaire and Goal. These three NGOs now spend over half of their own budgets on emergency assistance, which amounted to five times the total spent by the official aid programme in 1994. Irish Aid's own humanitarian assistance was focused most heavily on famine relief in the 1980s but, in the 1990s, the main focus has been on the relief of refugees, internally-displaced persons, and victims of war.

The final part of this book examines new approaches to practice in facing the challenges of famine and promoting food security. It contains five chapters (by Piet Terhal and Indira Hirway; David Walker; Bob Currie; Alan Sverrisson; and Patrick Mulvany, Brian O'Riordan and Helen Wedgwood).

Terhal and Hirway claim that, given the many obstacles to rural employment, the role of public authorities in protecting food entitlements and preventing hunger is crucial. What is the potential in this regard of a public guarantee of employment on rural public works programmes (RPWPs) that contribute to productive development? Terhal and Hirway argue that RPWPs have three objectives: poverty alleviation by the creation of employment and incomes; the creation of capital assets; and the appropriate management of the environment. These objectives can be in conflict. The assets created by RPWPs may increase economic inequality, or employment-intensive RPWPs may not be the most suitable way of advancing the economic development of an area. Apart from these trade-offs, finance becomes problematic if RPWPs are large and the wage paid is high. There is

also a political aspect, concerned with the self-mobilisation of beneficiaries and the response to this by the government.

From a larger study, three cases of RPWPs were selected for review. They are: East Pakistan (now Bangladesh) in the 1960s; the Maharashtra Employment Guarantee Scheme; and the working of two national rural employment schemes in four districts of Gujarat. These cases show that the single most important factor in the success of RPWPs is the political commitment of the national government. But this has to be combined with a far-reaching decentralisation of planning and implementation, and with continuous monitoring and evaluation to detect and correct abuses. Formal involvement of workers' organisations will also be useful.

There are a variety of ways to link social security entitlements with rural public works, and Indian models have differed from those adopted in China, where radical land reforms have permitted a more communal approach to this link. The limited success of the Indian cases has been attributable to lack of political commitment, and also to poor administrative capabilities. The present mood of reform in India may change these things for the better and also improve domestic financing prospects. But in an environment of continuing structural adjustment, Terhal and Hirway suggest, a supranational contribution to financing (perhaps from the Tobin tax) is also justified.

Walker considers the potential for improving the efficiency and cost-effectiveness of food aid grain delivery. Food aid grain shipments are running currently at 13 million tonnes a year. Donors have a duty to deliver food aid grain in an adequate and acceptable condition at least cost. Procurement, inspection, shipping and storage systems are all highly necessary to provide overall quality assurance and cost-effectiveness. Experience at ports of loading and discharge, and in food aid delivery programmes, indicates that insufficient attention is paid to quality assurance and loss minimisation. Grain procurement specifications that are normally appropriate for safe handling and storage in temperate climates are commonly inappropriate for tropical climates. Losses caused by the need to fumigate and/or re-bag the grain could be minimised by cost-effective reductions in moisture content at source.

Local procurement of food aid grain has increased recently, creating a need to improve operational and management aspects of tendering procedures. Walker claims that problems have occurred with poor quality, insect infestation, underweight sacks, and late delivery.

Potential cost savings are associated with improving technical specifications and employing a cargo superintendent at the port of loading. He suggests that, where possible, consideration should be given to lengthening delivery lead-times for non-urgent consignments and consolidating small shipments.

Financial and logistical considerations commonly favour the bulk shipping of grain, so that bagging is normally done at the port of discharge. A choice must be made of bagging material. Although woven polypropylene sacks are cheaper than jute sacks, Walker claims that the jute sacks are preferable for food aid delivery.

The good government agenda of aid donors has important implications for efforts to promote food security, given the reluctance of governments to acknowledge the presence of famine. Although the Indian model has been used to argue that multi-party elections, free speech, and an independent judiciary have greatly improved food security in India, Bob Currie claims that this hypothesis needs to be re-examined with local case study material, in this instance drawn from the Kalahandi district in Orissa.

In 1985 and 1987 court cases were brought against the state government of Orissa for failure to implement the provisions of the Orissa Relief Code when Kalahandi was afflicted by famine. The case focused on the existence of widespread illegal distress sales of crops and the need to take moneylender credit which, if not repaid, resulted in illegal bonded labour. The Supreme Court launched an inquiry but its report blamed the people of the district for indifference to or abuse of government schemes. Two subsequent cases in 1988 moved the Orissa High Court to mount its own inquiry. This found failures in state action and confirmed five cases of starvation deaths, for which the Court subsequently ordered unprecedented government compensation payments.

Currie argues, on the basis of the Kalahandi cases, that it is important not to overestimate the *de facto* security which Indian institutions provide to the vulnerable. A gap exists between the great potential of a democratic framework to improve food security, and what sometimes happens in practice. It can persist despite critical court judgements and even changes of government, influenced in part by those judgments, as has happened in Orissa. The courts will need to have substantial powers of enforcement. As Gandhi said: 'a petition without the backing of force is useless'.

Sverrisson also looks at governance issues. His chapter is focused mainly on the political and governance aspects of both social action

programmes and social funds. He examines a number of examples of such programmes. Those from Latin America include the Bolivian Emergency Social Fund, Mexico's PRONASOL, Chilean social programmes under Pinochet, and the Peruvian PIAT. These are compared with Ghana's PAMSCAD, two schemes in Senegal, Zambia's Social Recovery Fund, and Uganda's PAPSCA, as examples from Sub-Saharan Africa.

The context of these poverty alleviation programmes is the policies of structural adjustment sponsored by the World Bank. Sverrisson suggests that these policies have generally failed to produce real growth, development and improvement in living standards. The social programmes have been needed to justify, to both internal and external constituencies, the continuance of structural adjustment. But where they have served to enhance the political sustainability of adjustment, they have also often failed to reach the poorest and most marginalised sections of the population. Thus, these social programmes should not be classified as safety nets, but rather as pro-poor programmes that embody a specific political agenda, namely the promotion of adjustment measures.

Three clear conclusions emerge from the discussion. The first is that the attempt to translate a particular social programme (like the Bolivian ESF) to other countries and continents is difficult, because key elements in the package (such as the intermediation of NGOs) work out differently in different places. The second is that social programmes are not necessarily politically stabilising, as the effects of PRONASOL on Mexican politics attest. The third is that social programmes seem often to contribute little to poverty alleviation, the political sustainability of economic reform, or the governance of social sector policy overall. The main lesson of this largely negative picture is that the impact of institutional and policy innovation can be undermined by the neglect of political considerations and the lack of political understanding.

According to Mulvany, O'Riordan and Wedgwood, a number of threats exist in relation to promotion of food security for the world's poor people, especially those who live in cities. One such threat is the increasingly capital-intensive and inherently more uniform production systems being promoted at international level which threaten the more labour-intensive local food production approaches and reduce genetic diversity.

The three authors, all attached to Intermediate Technology (IT), present two case studies which illustrate IT's approach to tackling

food insecurity at household, community, and international levels. This approach, they claim, promotes diversity of locally-determined technologies and genetic resources, and helps communities of farmers, herders and fisherfolk to manage technical change in food production in order to reduce their vulnerability and improve their livelihoods. The authors suggest that NGOs have an important role to play in ensuring that the views of poor food producers, who are guardians of the knowledge and skills of local food production and for in-situ conservation of food species, are heard at international forums.

The 1995 DSA Conference, like most academic conferences, did not arrive at a body of settled conclusions immediately applicable to policy. The lively discussions exposed many differences of opinion and points of disagreement. Nevertheless, we believe that, on two major issues, a broad consensus could be discerned. In the first place, the Great Irish Famine does stand out, after comparison with modern famines, for the severity of its excess mortality, on the one hand, and for the availability of mass emigration as a safety valve against future demographic disasters, on the other. In Africa today, famines are thus likely to be both less destructive of life and more liable to recur. Looking across history at the phenomenon of famine itself does not dispose of the case for 'Irish exceptionalism'.

In the second place, it is wise not to draw too firm a line between famine and the general problem of food insecurity. The Great Famine itself was preceded by forty years in which the agricultural economy, especially in the west of Ireland, was pushed closer to what one writer has called 'the potato precipice' by the spread of potato monoculture in the inhospitable conditions of mountain and bog. Similarly, in modern conditions, the severity of famine depends on the pre-existing degree of economic vulnerability of a population and the assets that are available for coping with economic or political shocks. The effects of famines are not catastrophic but short-lived. In a variety of ways they have adverse, longer-term consequences for the resilience of the survivors. Finally, from an ethical point of view, there is no justification for responding to famines differently from less dramatic problems of food insecurity. The moral responsibility for all to act collectively to reduce everyday hunger and poverty is, importantly, a continuing one.

Note

1. The exposition on food security, food insecurity and famine presented here leans heavily on a presentation by Dr Majda Bne Saad at a seminar held at the Centre for Development Studies, University College, Dublin on 29 April 1996.

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2 A World without Hunger: An Ethical Imperative

Nigel Dower

THE CONTEXT AND FRAMEWORK

What is a Famine?

My dictionary tells me that the primary meaning of 'famine' is: 'serious, acute shortage of foodstuffs in a given area, at a particular time'. Such definitions can vary in their usefulness, but this one makes a good start. What makes a shortage of foodstuffs acute or serious? The assumption is that many people in the area in question go hungry or suffer starvation because of the lack of food. This lack of food may be very severe in that there is literally not enough to go round everyone in the area, or it is relatively severe in that many people do not have the access they normally have to food, whilst others may still have reserves which they do not share but hoard, openly if they are powerful enough, or secretly if they are not.

But there is a further assumption related to its being 'at a particular time', namely that the normal source of adequate food no longer exists or has been reduced drastically. When we think of famine we tend to think of certain kinds of natural causes reducing or destroying the food supply that is harvested in the area in question – whether the cause be drought, pests, diseases in crops, earthquakes, or flooding. But need the causes of food shortage (called famine) be natural? They could be processes directly related to human activities. There are two kinds of case. First, where the development or agricultural policies pursued cause food shortage or make people more vulnerable to 'natural' causes. Second, where other activities, such as war, literally destroy food or destroy the communications that normally allow food to enter the area. If a country normally relies on the import of much of its food (such as a rich desert state in the Middle East, or the United Kingdom, which arguably has too big a population to sustain itself on its own land and waters), the cutting off of such imports – for example, because of a state of war – is the stopping of a normal source of adequate food. Would the result be a famine? Similarly, and sadly

all too frequently, civil war within a country both destroys areas producing food, and destroys supply routes for the normal import of food into an area. If starvation occurs, is this a famine?

From the point of view of my dictionary definition, these *are* examples of famines. It may be that nothing hangs on whether we count them as famines or not. On the other hand, I suspect something does hang on this, when we consider later why famines are seen to make a particular moral appeal on us.

The issue is not so much whether the food shortfall has primarily natural causes (not significantly affected by what humans did or did not do where they reasonably could have acted otherwise), or depend upon the impact of human activity – such as wars or development policies (like over-reliance on cash crops). Any shortfall of food normally produced in the area is a famine. It is where a food shortfall occurs because the normal routes for the import of food are stopped or checked that linguistic usage is less clear.

What leads us to call all these causes cases of famine is that the food shortfall in an area, whatever its cause, is acute and leads through hunger/starvation to deaths, either directly or via diseases that weakened bodies are less able to fight off. As such, death, suffering, hunger and disease caused by famine have a particular moral appeal to us, a greater moral pulling power than that caused by the general and normal conditions of humankind which our development policies produce, permit or perpetuate. I shall, however, argue that this greater pulling power may be understandable psychologically but has no rational foundation at all.

Ought We to Prevent Famines?

The main question I want to address is this: if it is possible to prevent the continuation of famines (if not their occurrence in the first place), ought we to do so? First, who are 'we'? 'We' here refers to the international community or global society of all human beings. This is made up of international organisations, governments, NGOs, businesses and, lying behind them, individual human beings who, as citizens, members, stakeholders and consumers in the global community ultimately shape the priorities of organisations. Are there ethical arguments making the prevention of famine an ethical requirement on all those who have the capacity and resources, financial or otherwise, to do something about it – a requirement which, if generally accepted, would produce the requisite changes at a global level?

To anticipate my main thesis, I want to argue that not only do we have a duty both to prevent famines from occurring, wherever it is possible, and to respond to famines to prevent them from continuing, we also have a duty to prevent hunger (or its continuation) and absolute poverty more generally. The obligation to prevent (the continuation of) famine is to be derived from the more general obligation to prevent (the continuation of) hunger and extreme poverty.

This way of putting it may evoke the response: the implied *a fortiori* nature of the claim is based on a false assumption that all relief of hunger and poverty is on the same moral plane, whatever the causes of them, and this is, to say the least, controversial. Hunger, disease and death caused by famine may be different because, for example, adopting a neo-Malthusian stance, the famine is indicative of the fact that ecological limits have been exceeded by the population in the area, and therefore it is wrong, and no good done in the long term, to intervene with food aid and so on. I shall attempt to answer this objection later, once the main positive moral argument has been outlined.

Ought and Can

It may be thought that there is an initial objection to the whole enterprise. If it is not possible to prevent famines throughout the world, then it cannot be our duty to do so. 'Ought' implies, that is, presupposes, 'can'. This raises two questions: is it an objection that we cannot prevent all famines? Can all famines be prevented?

First, even if it were not possible to prevent all famines, it could still be the case that we have a duty to do so as far as we are able. If there is a duty to prevent famines, it does not rest on its being completely possible, but simply on the premise that there are strong reasons for preventing what we can, and often for giving this and parallel areas of activity such as alleviating extreme poverty a priority over other ethically acceptable goals.

Can Famines be Prevented?

Second, can famines be prevented? The most obvious way in which famines can be prevented, or at least reduced, is to disconnect the natural cause from its food-reducing effect. I leave on one side the issue of how far processes of nature such as levels of rainfall, earthquakes and movements of pests can be controlled (but in so far as they can, there is another level of preventative action made possible), and consider rather what can be done to mitigate the effects of such natural processes –

better irrigation systems, water-retention systems, flood-protection systems, pest-resistant crops, storage systems for food reserves, and so on. Much good development work will be concerned with practical measures to ensure that adequate food is produced and secured to withstand abnormal and otherwise damaging natural processes.

It would be foolhardy to suggest that, through appropriate development policies and aid policies, measures could be taken to prevent in advance all famines in this way. At most we might say that while many famines could be prevented this way, many situations will arise in which famine occurs through natural causes, and which either cannot be anticipated or cannot be prevented (at least at a reasonable cost). What, then, we can prevent in such cases is not the occurrence of a food shortfall in an area but, by rapid response, the deleterious consequences of that shortfall. That is, we – those outside the area – can intervene with appropriate measures quickly enough to prevent starvation and severe malnutrition.[1] So again, by trying to disconnect the cause from its usual effect, this time the lack of food in an area (caused itself by abnormal causes such as drought or civil war) from its effect, namely starvation, we intervene so that there is access to food.

If the prevention of famine includes the prevention of starvation by positive intervention (such as food aid or providing money with which to buy food from outside), can we think in terms of a world free from famine? Almost, but not completely. Any intervention requires both knowledge and access. If we do not know that people in an isolated area or in a particular country are starving from famine, we cannot act to prevent it. This lack of knowledge may or may not be a result of the wilful concealment of the problem. Even if we know, but we cannot get access to them, then again we cannot prevent it. (Consider the parallel of people starving on a lifeboat which we either do not know about or cannot find.) This lack of access may be caused by two factors: first, lack of adequate geographical or physical access to a more remote area, and second, now much more commonly human conflict (where the will of others, soldiers, for example, stopping or diverting food or governments and agencies who do no wish to admit the crisis or to be helped) interferes with any process of assisting starving people. Recent events in Bosnia have shown this all too vividly.

Prevention or Cure?

Ought we to prevent famines? If so, which is more important: prevention or cure: that is, policies which prevent food shortfalls, or polices

which enable adequate food from outside to be acquired when food shortfalls occur? Since the first will never rule out situations in which the second is needed, we need both, of course, but how far do we go for the first? It is partly about estimates of relative benefits, given certain levels of resource, so partly about an empirical 'cost–benefit' kind of analysis. But it is hardly this alone. It has something to do with the philosophy behind it. Famine prevention policies, unlike food aid, are, of course, no longer emergency responses but part of a wider commitment to 'development' for poor people for whom starvation from famine is not the only serious form of evil with which they have to contend. They may, after all, be hungry because of their marginal economic status in a country where there is plenty of food and no threat of famine. Most hungry people are hungry in this way, and for them it would be rather an academic point whether the hunger in their bellies is caused by famine or by poverty. They may also suffer in other ways from many other causes, such as disease or oppression, without being hungry.

If we have a duty to prevent hunger from famine, why not hunger, full stop? Why not all the forms of acute suffering that go with extreme poverty? Where do we stop? It is this 'tip of the iceberg' character of famine prevention that I am sure often makes people hesitate before saying too firmly 'we ought to prevent famines', as opposed to the rather more manageable 'we ought to respond to famines with emergency assistance when they occur'. Not that we do that adequately anyway; the point is that it is tempting to put emergency assistance into a 'box' with the following characteristic: it is a response to an evil which is extraordinary, dramatic and occasional, not ordinary, commonplace and far too much of it! If, however, we look at the moral basis for action, we shall see that this 'box' is quite flimsy, and that if there is morally a case for action, it is not merely for responses to the extraordinary forms of suffering, but preventing and alleviating the *ordinary* forms of suffering – hunger from any cause, disease, lack of autonomy and so on.

THE MORAL ARGUMENTS

What Makes Famine a Bad State of Affairs?

If we ask what makes famine a bad state of affairs, the main reason must be that it causes acute hunger, starvation, and often as a result,

either directly or more commonly through the incidence of debilitating diseases, the premature death of many people. Hunger, malnutrition and starvation are bad for many reasons, both in themselves and for what they generally cause. In themselves they involve physical suffering, bodily malfunctioning, weakness and mental pain (wretchedness, helplessness, powerlessness, indignity associated with the perception that they are starving). They also lead to illnesses and diseases, loss or lack of capacities, and premature death. In addition they undermine, as does severe poverty more generally, the possibility of rational autonomy and the exercise of an individual's powers to make choices and lead a meaningful life. In other words, adequate nutrition is a precondition for most other positive human activities. In so far as famine causes acute hunger, it merely accentuates the harmfulness of the states that result from it.

In the light of these rather informal considerations we can see why hunger (of which famine is one major cause) is bad. In saying hunger is bad, I do not mean 'morally bad', but rather what has been called a 'natural evil'. The key question, of course, is: is it morally wrong (or bad/evil) to cause or allow to happen what is naturally bad or evil? Ought we then to do something about it? Indeed, ought we to give it an ethical priority? There are various ethical theories that could be used, but in this paper I will concentrate on two lines of thought that are well known, those of Singer and Shue.

Peter Singer's Approach

Singer's Principle

I shall start with some thoughts on a justly famous principle put forward by Peter Singer in 1971, in an article entitled 'Famine, Affluence and Morality'.[2] Many books and articles have been written on the ethics of aid, but this remains outstanding for its clarity and ethical incisiveness, and is particularly relevant to the issue of famine. Singer himself was referring to the appalling famine that had occurred shortly before in Bangladesh (then Bengal). He considered the parallel of a lecturer passing an ornamental pond and seeing a child struggling in the water. Although he did not cause the child to be in difficulties, we all share an intuition, Singer claims, that the lecturer ought to prevent the child from drowning, even if there are some costs to himself – like being late for his lecture, and getting his clothes wet. What principle underlies this intuition? Singer advances the following:

'If it is in our own power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it.'[3] Singer works out an ethic of radical sacrifice on the basis of this, since maintaining our affluent lifestyles is not of comparable moral importance. Although he himself is a consequentialist or utilitarian, Singer argues that people who accept other moral duties (such as keeping promises and telling the truth as being intrinsically right) should also accept the above stated principle and, providing they are not breaking those rules (of comparable moral importance), that they ought to prevent as much as they can of what is very bad from happening until marginal utility is reached – that is, until they would be doing as much harm to their own interests as they would be doing good to others.

The article has been subject to much discussion.[4] Most of it has been on the implied 'as much as you can' radical sacrifice feature of it. Don't we have rights (even duties) to pursue our interests and projects, even if 'more good' could be achieved in the world if we did not? Don't we have special relationships with, and thus duties to, some particular others, such as family and friends, which override considerations of general good? Alternatively, the radicalness of his suggestions may be seen to be undermined when we look at the long-term implications of our wishing to give up maintaining our economic well-being.

While these criticisms have their point, it remains the case that Singer has identified a dimension to moral responsibility – namely the responsibility we have, at least to some degree, for not letting bad things happen when we could prevent them. If any evils are candidates for such prevention, starvation and premature death (from starvation or disease/illness) are surely prime candidates.

A Principle of Collective Action?

Even if it puts an undue burden on the shoulders of any individual to ask him or her to do all in his/her power to prevent preventable evils, the request may not be so out of order if it is asked of us collectively: if it is in the power of the world community to prevent something very bad from happening (without thereby sacrificing anything of comparable importance) then it ought to do it. Suppose that, technically (in terms of skills, available transport systems and so on), the world community has the power, the key question is: does it have the power in terms of commitments, mandates and institutional structures to do

so? On the one hand, the pessimist or so-called 'realist' will say: 'no' and that states and businesses are locked into self-interested agendas, which means that there is no real chance that the technical means at our disposal will be used, except in the ways already sanctioned by practice and self-interest. On the other hand, the optimist (often dubbed an 'idealist' by the realist) believes in the real possibility of changed priorities, but mainly because of the real possibility of changed priorities among individuals.

What is required of individuals (with not merely financial resources available beyond what they reasonably require for the quality of their own lives,[5] but also energies, skills, time and so on) is not doing all one can (in the face of others' indifference) but doing proportionally what, if others in like circumstance around one did the same, would create the collective will in institutions to take adequate action. Thus, if individuals signalled that they were willing to make some contribution of time and money, and signalled to their governments (and to companies by their consumer preferences) their wish that policies be pursued that prevented hunger and so on (even if this meant having to pay a little more for their goods), then I think the goal of preventing (almost all) famines (food shortfalls or starvation) could be realised and indeed ought to be realised – for reasons implicit in Singer's principle, but modified as a principle of collective action.

What is Very Bad?

As I said earlier, Singer's principle was intended as a neutral principle, appealing to consequentialist as well as non-consequentialist. There are other respects in which his formulation is open-ended: namely, what counts as 'bad' and what counts as 'prevention'.

In the context of his article it is clear that what was uppermost in his mind was premature death (from the famine) and that preventing death meant immediately food aid. Confirmation that death was what was uppermost in his mind is given by the fact that he also in the later book version of the article considers another way of drawing his radical conclusion: namely if it is wrong to kill someone, it is equally wrong to let someone die when you could prevent it, so letting people die is possibly 'morally equivalent to murder'.[6]

Two questions arise: what is it about death that makes it bad? Is it right to locate the great evil of hunger in its being the cause of death? Death, but particularly premature death, whether from starvation,

disease, illness, accident or deliberate killing, is bad because it is the cessation of a life which would otherwise have (normally) contained meaningful and pleasurable activities, the exercise of rational powers and capacities, emotionally significant relationships, the provision of financial and other forms of support for those still living, as well as, for some thinkers, the continuation of something intrinsically valuable, namely (human) life as such.

But if death is bad for these reasons, then so are many of the conditions of human beings who have not yet died (and maybe not about to die either), for similar reasons. Starvation and disease/illness are not merely bad because they cause death, they are bad because they involve acute suffering (let alone the undermining of pleasure and meaningful activity), they reduce or undermine the capacity for rational choice and control over one's life, they distort relationships, they undermine the capacity for productive work and for support of those dependent upon an individual, and more generally the realisation of their capabilities.

A rounded account of what makes hunger and extreme poverty generally bad would, I think, have to include the further elements (that I have discussed elsewhere) implied above and drawn from Kantian and Aristotelian sources.[7] That is, in addition to the presence of suffering, there is also the undermining of rational agency/control and the failure to exercise a whole range of capacities (many of them physical) in appropriate functionings.

Singer's principle can, of course, readily be interpreted to cover all these points. (Strictly, one would have to adapt the principle to include 'the prevention of the continuation of something very bad', since the starvation or hunger may, of course, already exist, and so cannot be prevented.) As a utilitarian, he would himself be keen to stress that the suffering of starvation, well before the death it is likely to cause, is also a great evil. So, if the great evil is starvation or hunger that is to be prevented (or rather more specific features such as suffering, loss of rational choice and low quality of life, however defined), Singer's principle will work just as well.[8]

It is worth noting in passing that we have here part of the reason why famine evokes a stronger sense of moral concern than hunger more generally. We are concerned because famine is generally a level of food shortfall that is likely to lead to deaths, whereas hunger more generally, while of course leading to deaths (through illness, weakness and so on), has a less visible and direct connection with death. But if my remarks above are along the right lines, the reasons why early

death is bad are also the same reasons why the extreme poverty of the living is bad, and we ought therefore to be cautious about making a distinction in principle. However, the fact that famines lead so directly to deaths may be a reason in practice not to take action, for neo-Malthusian reasons, and I shall return to this possible difficulty later in the chapter.

Implications for Prevention

If we stress that what is very bad is not merely death, which is caused by starvation, but the condition of the starving (or otherwise very poor) as well, we can see that what a preventative principle commits us to is much more than immediate emergency relief. Indeed, this is already implicit in Singer's main concern (and he discussed it later in his article), since if we are to prevent death not merely in the following few months but also in the longer term, then proper development policies are needed to help people to help themselves. If we are to prevent starving, we not only need to do what will prevent the continuation of it when it occurs – whether through famine or through the endemic patterns of inappropriate development – we also need to do what will prevent (or reduce the likelihood of) starvation occurring in the first place, even in the face of the natural and human processes that otherwise would create such starvation. This means a commitment to development policies properly targeted on the well-being of the very poor.

Henry Shue's Approach

Another influential work of a philosophical kind, written some years after Singer's but also arguing for a strong obligation to tackle extreme poverty, was Henry Shue's *Basic Needs; Subsistence, Affluence and US Foreign Policy*. Shue has usefully suggested that there are three socially basic rights – to subsistence, security, and liberty.[9] These are basic because they are essentially preconditions for the exercise of other, more complex, rights. There are, according to Shue, three types of duty corresponding to such rights – the duty not to deprive; the duty to protect from standard threats of deprivation; and the duty to come to the aid of the deprived.

If I have the right to subsistence (food, water, shelter, clothing), then others have a duty not take these away from me (by stealing them or otherwise undermining my capacity to acquire them). But,

Shue suggests, I also have right to be protected from standard threats to my subsistence. The correlative duties would largely fall on government agencies, with the support of citizens to provide the underlying economic, legal and development framework in which the most obvious dangers can be averted. Shue used the language of protection but it is obvious that this is very close to the idea of preventing whatever threatened to undermine a subsistence right. Famine prevention measures against the likely causes of it would be an obvious example of this. Third, where, however, people are deprived of their basic subsistence rights (because of natural disasters, the injustices of others or the failure to fulfil the duties to protect adequately), then we have a duty to aid the deprived. Governments should have welfare programmes to hand, and individuals ought to play their part in helping others too. (Similar accounts of security and liberty rights can be given. The 'right to life', incidentally, can be read as an amalgam of all three rights.)

Global Obligations

Such an approach in stressing universal rights certainly makes little sense unless we support a global framework of obligation. If a human right is a right held in virtue of our nature by all human beings unconditionally (that is, not dependent on the laws or customs or decisions of human beings), then if there are human rights, we clearly have a framework for general obligation to promote or protect them. Much depends on what we identify as human rights and how we understand the framework of correlative duties that surround them. As Shue says, 'Basic rights are the minimum reasonable demands upon the rest of humanity'.[10] He does not himself however advocate a radical redistribution of wealth from North to South, though others using his framework have.[11] This is partly due to the realities of international politics, and partly to the problem noted earlier of how much can be expected of individuals. Clearly, when the hungry number 800 million, there is no overnight solution to aiding all the deprived or providing protection to all standard threats to deprivation.

But there is no doubt that human rights discourse puts pressure on governments and individuals to accept duties in principle both to protect from deprivation and aid the deprived on a global scale, and to move in the direction of greater realisation of these duties. And if my adaptation of Singer's principle as a principle of collective respons-

ibility is on the right lines (with each individual doing what is proportionally necessary), then we do, I think, have it in our power to realise the two duties to protect from standard threats and to aid the deprived, so far as famine is concerned, and indeed so far as the conditions more generally of absolute poverty in the world are concerned.

OBJECTIONS AND REPLIES

Initial Problems: Lack of Global Community and Lack of Global Ethics

An irony is that in the modern world, with our extensive knowledge of global hunger, our extensive communication and transportation systems and the existence of food surpluses, we do not seem to be able to replicate the practices of past smaller societies of at least trying to ensure that everyone had enough of the one crucial thing it was in the power of others to provide – namely, food. It is as though we have the technical ability to do so, but lack the psychological and institutional capacities. This is, of course, an over-simplification, but it suggests that there are two related factors that are missing. First, we don't see ourselves morally as a global community or society in which those who are well off see themselves as having at least a minimum commitment to ensure, as far as is possible, that all have access to this precondition of human well-being – adequate food. Second, the reason why we are psychologically and institutionally unable to meet the challenge is because most of us are not sufficiently persuaded by a moral vision that tells us that this is really a morally pressing thing to do. What we need is a global ethic which spells out the idea that we have obligations – serious obligations – towards all other human beings, obligations which cross societal and national frontiers.

Both Singer's and Shue's theories, apart for their shared emphasis on subsistence and basic needs, are also examples of global ethics. If their arguments are on the right lines, then there is a global ethic and we are a global community, even if, in another sense, they do not exist, because few believe in them (these two senses are explained below.) There are many other theories, not least Kantian theories (to be mentioned later) and various forms of contract theory (such as Beitz' and Pogge's adaptation of Rawls' theory to the global level)[12] which also defend a global ethic with commitment to help the poor.

Three Alternative Kinds of Objection

There are also, however, rival theories and approaches that would not take the above poverty-focused global ethical approach, and it is to these I now turn. Some objections have more to do with the general obligation to help alleviate serious poverty; others have more to do with responding to famines in particular. There are three rather different types of argument which can be given against the claim that we have a duty to give aid:

(a) The first kind of argument is that quite generally, whether we are thinking of relations within established societies or of the whole world, there is no general duty to help others.
(b) The second kind of argument is that, whether or not we accept that we have duties to help one another in our own societies, we do not have global obligations toward people living outside our own societies.
(c) The third kind of argument is that, even if we do accept that we have duties to help others and that, in principle, these duties extend to everyone in the world, in practice we have no duty, because aid simply does not work.

There is No Duty to Help Others

There are various ways of developing this point. One might argue that the conventions of society which bring people together are conventions that enable us to live together: what is required of us is to not harm one another or to invade one another's liberty.[13] It is one thing not to lie, kill, steal and break promises, and another positively to help others when they suffer (as a result of natural causes or the wrongdoing of others). We may have a duty to help or care for others when there are special relationships (such as parents to children, one friend to another) or contracted services, but no generalised duty of benevolence (though benevolence and 'charity' may be 'good' or 'supererogatory' – i.e. beyond the call of duty, which is how donations and foreign aid are often thought of). Similarly, Nozick adopts a libertarian position, according to which 'liberty' is the central value: we should respect other people's liberty and accept their rights as 'side constraints' or limits on our actions. But this does not involve positive duties to help others. Indeed, Nozick is particularly keen to argue that all government action for redistribution, whether to the poor in one's

own country or, by implication, to the poor in other countries, is unjust because it is a violation of liberty.[14]

The main difficulty with such arguments is that the agent is seen as an isolated individual, and morality as a social arrangement in which nothing more is expected of an agent than that he or she will benefit him or herself from what others do. The question is whether morality should be conceived of in this way. If morality is about recognising that everyone has a moral status – that his or her 'good' counts – then it requires action to come to the aid of others whose good is threatened or undermined, not just refraining from doing things that harm others.

One further consideration may be mentioned here. The idea of reciprocity is often brought in – the idea that morality is based on reciprocity, with each person playing his or her part in a scheme of co-operation on the assumption that others do so as well. This accounts for why we accept rules telling us not to tell lies, steal or break promises. But what about the rich helping the poor (whether in one's immediate society or in the world at large)? Can they be required to do something which is not being reciprocated to them by the poor? They are certainly not doing so at the time, and possibly never will, if they remain relatively poor. It is possible to read Immanuel Kant's ethical doctrine in this way: what is expected of any agent must be capable of being universalised – my helping someone cannot be universalised; so I cannot be required to do it.[15]

On the other hand, the idea of reciprocity and Kant's own position can be understood rather differently. Reciprocity is not a matter of what is actually done by (nearly) everyone else which benefits me; it is what I would wish to have done by everyone (that is, 'do as you would be done unto'). Similarly, Kant says the following of benevolence, his third example of the first formulation of the 'categorical imperative' ('So act that the maxim of your action is willed as a universal law'): I cannot will the maxim 'do not help someone else in need' because if I were in a position of need I would will that others help me' and my will would be in contradiction with itself, so helping others in need is a duty.[16] The point is not whether I seriously envisage myself being in need, or seriously envisage the possibility that the person I help will ever be able to help me (or indeed others), but whether if I were in that position I would will the help of others who could help me. When we look at the second formulation of Kant's famous imperative ('So act that you treat humanity whether in your own person or that of another as an end and not merely as a means'), he also argues there

that to fail to respect the rational autonomy of another agent in need by not helping them, is in effect not to treat him or her as an 'end', that is, a 'rational pursuer of ends', but selfishly to ignore him or her.

While Kant was probably thinking of responding to need in immediate situations such as Singer's example of the lecturer, there is no reason why the reasoning cannot apply more generally to responding to distant poverty. Indeed a modern Kantian scholar Onora O'Neill has made an attempt to use the Kantian approach to argue for significant obligation to address global poverty. (Her argument is not merely based on the duty of benevolence to respond to the material injustice of the poor whose poverty undermines the development and exercise of rational autonomy, but also makes use of the Kantian principles of non-coercion and non-deception to show that much poverty is caused by failure to observe these principles for example: by multi-nationals.)[17]

There is No Global Morality

The second kind of argument against a duty to give aid to alleviate distant poverty is simply this: people live in different societies; each society has its own moral traditions, institutions, laws and culture; within each society there are certain shared rules and values, and an acceptance that individuals have obligations to one another within their society – some backed by the sanction of enforceable law, some by social sanction. The world is made up of many such societies, but each society is, to a large extent, self-contained. There is no 'global' society (whatever the rhetoric of some idealists) in the sense just indicated – no single set of values, no shared traditions, no comparable institutions and enforceable laws, and certainly no obligations binding members of one society to act in certain ways towards others in other societies.[18]

Two further arguments are used to back this claim that global society is not a social reality: first, relativism; and, second, theories of international relations. Relativists stress the lack of common or universal values and norms, and international relations theory either stresses that the relations between states is competitive and anarchical, or that a government has an overriding duty to promote the national interest or the will of its electorate.[19]

To answer these objections adequately would take more space than is available in this discussion. But I shall outline the main lines of reply. There are two broad strategies one can adopt: the first to take

on the arguments on their own terms; the second to challenge the whole basis of the arguments.

The first reply is to say: 'the world is not as you describe it'. The conditions in the world – shared practices, institutions and so on – are such that there are common values and obligations accepted and these include the duty to give aid. Global society does exist, albeit not in quite the same form as in national societies. There are shared institutions and laws, and the common acceptance of obligations across borders. Whatever truth there is in relativism (and there is a value in respecting cultural diversity), it is consistent with there being many shared values throughout the world. A multicultural world can have a shared moral framework no less than a multicultural society. It is simply not true that states are locked into competition all the time, since there is a high degree of co-operation. Many agreements among states involve duties to help one another (at the beginning of the 1970s, for examples the rich countries committed themselves to giving 0.7 per cent of GNP in official aid). The duties of governments are certainly to promote the national interest and will of the people, but that does not mean that there are no further obligations to promote wider goals, such as the reduction of poverty. And given that increasingly well-informed electorates may well want governments to address global poverty, peace, and environmental goals, the national interest as expressing the popular will in fact incorporates to some extent these global obligations.

All these observations are, I think, valid, useful and important (for reasons that will be indicated shortly), but they concede a point that should not be allowed: the existence of global obligations depends upon their being accepted in the practices and institutions of states themselves. Global obligations do not depend on their being accepted, agreed, enforceable, or embedded in law, institution or practices. Whether or not we have global obligations to alleviate poverty depends on the moral arguments for it – arguments of the kind presented by Singer, Shue and O'Neill, to mention those I have discussed here.

What is perhaps important about such theories is the recognition that, as moral agents, we can make choices which affect the interests and rights of other agents, and that once we accept the moral point of view, everyone has the same moral status and our obligations extend as far as our capacity for affecting others goes. This means, of course, anywhere in the world, since our capacity to affect the well-being of others is not restricted by national frontiers. (It also means,

incidentally, that if we think non-human life has a value – a 'good' or 'interest' – then, in so far as our actions affect them, they become morally relevant or 'considerable', as do future generations, for the same reasons.)

There is here a fundamental divide between those moral theories which see the scope of obligation and application of values as depending on certain kinds of social facts (the 'empirical' or 'a posteriori' approach)[20] – acceptance, shared traditions and practices, consensus, convention and sense of community, and those moral theories which do not, but set out a reasoned case for a set of values and obligations (the 'a priori' approach).

The social facts mentioned above are, however, important to the advocate of the second approach. The social facts do not establish the obligations or values (this is done by the theorising itself) but they do specify the conditions needed if the value and obligations are to become generally accepted and acted up on. I am under no illusion that the arguments advanced in this chapter will make much difference to what happens to the poor until their concerns have become embedded in the social reality of institutions, habits and practices of national and international actors. But the arguments are valid regardless of whether they are generally adopted. Morally, we are a global society/community, even if the sense of its reality is so far only partial. Put succinctly: we are global citizens with tribal souls.[21]

Aid Does No Good

The third wave of resistance to the claim that we ought to give aid (whether official government aid or that of agencies funded by private donation) comes from the view that aid does no good, or even does harm. We have no duty to do what is ineffective or counterproductive. So in practice we have no duty to give aid (even if in principle we do).

This general line of resistance might take two forms: aid does not work, and, more strongly, aid cannot work. The first view rests on an empirical estimate of the effects of aid programmes (even the best-intentioned targeted for helping the very poor); the second on a conceptual backing based on the consideration that aid necessarily creates dependency, so that since genuine development for the poor is a matter of giving the poor autonomy and control over their lives, and since dependency and autonomy mutually exclude each other, aid cannot advance genuine development.[22]

Much more could be said, but as general arguments they seem suspect. That much aid is ineffective or counter-productive is a reasonable claim. That all aid is like this seems an extraordinary claim hardly supported by careful analysis of the track record, such as Riddell did in *Foreign Aid Reconsidered.*[23] But, of course, if not all aid fails, and one accepts that appropriate aid ought to be given, the response should not be 'give up' but 'learn from the past and adopt better aid policies'. As for the claim about the clash between autonomy and dependency, this again assumes two things: (i) that it is an 'either/or' situation; and (ii) all helping creates dependency. Neither seems to be true. If I help someone to mend his or her car, I do not create dependency, I help him to exercise control over his or her life again (for example, she gets to his/her meeting after all!). If a government employment programme helps a teenager get into a training scheme which leads to productive employment, that teenager has been empowered by this institutional programme. These examples are, of course, taken from our own society, but the point is precisely that if we accept these forms of assistance as being beneficial and natural, it cannot be a general objection to the idea of assistance that underlies an objection to foreign aid.

It may be thought, however, that there is something different about famine relief, particularly through food aid. Whatever may be the case about development assistance programmes (helping people to help themselves), there are features of famine that make emergency intervention morally problematic. So we have the irony (implied earlier) that the forms of response which the world community are most likely to see being as morally required (emergency responses to the extraordinary rather than standard responses to the ordinary) turn out to be the most problematic ethically. Even Garret Hardin, who has gained the reputation of being one of the most vigorous of critics of emergency assistance, is prepared to accept the value of proper long-term development assistance.[24]

The argument that famines are ethically different may have many sources, but I want to identify two strands:

(i) *Ecological considerations*: if famines kill, this is a sign that the population exceed the carrying capacity of the area they live in, and we ought not to interfere with these natural 'culling' mechanisms. (This is linked to a biological consideration: if famines kill, then those who die are more likely to be those who are weak genetically, so, again, we ought not to interfere with nature's way

of maintaining good genetic stock, but I do not consider this further here.)

(ii) *Utilitarian considerations*: for various reasons, partly based on the consequences of the factual elements in the evolutionary and biological claims listed above, the long-run consequences of keeping people alive are worse (for those who survive and others born after them who would not have been born) than the consequences of letting people die from famines or other life-threatening extreme circumstances.[25]

Neither of these arguments seems to me to stand up to careful scrutiny. First, should famine be allowed to be a natural culling mechanism for populations that exceed the carrying capacity of the land? It is not clear that famines always indicate this. If a famine is extraordinary, and ordinarily people can survive by their own efforts in an area, that means that the land can carry that amount of population.

Consider a farmer whose crops failed disastrously one year (though others around did not have the same disaster). We would not say that s/he should starve, rather that others could and should rally round to help him or her at a time of need. If an area in a country suffers an agricultural disaster (or, indeed, economic disasters of other kinds), the government or others elsewhere in the country would rally in various ways – at least to ensure that the necessities of life are available. So why not other governments and others in the world as a whole? It comes down to whether we think we belong to the same global community and care about others in it. It is not an ecological issue but a moral one.

But what if famine did indicate that the population exceeded the carrying capacity of an area? Does that make a difference? Yes, in practice, in terms of the types of policies needed, but not in principle. Clearly an emergency response (for example, by providing food) by itself would leave the underlying problem in place, so development assistance of a more sustained kind is needed, for example to provide greater economic power so that the people can purchase food from outside the area. After all, if cities are regarded as 'areas', then such areas have populations which obviously exceed their carrying capacity! Some countries that are economically strong, are also, as a whole, in the same situation in that their populations exceed their food-growing capacity.

From a global point of view, there are no doubt many concerns about cities and densely populated countries, but if their economic

wealth is sufficient to buy in food from other areas, that is not currently seen as a reason for a 'culling' approach to reduce populations. Now, of course, the very poor do not have the economic power to buy in food when there is a severe shortfall (or, indeed, at any time) – that is their problem and precisely the difference. But does it make an ethical difference? Why should that be a reason for us to say: 'Let nature take its course'? They could have wealth, if the appropriate development was available, if there was a reasonable distribution of wealth in the world and so on. Again, it comes down to what we are collectively prepared to 'will' and work for, not some brute fact of nature.

When we talk of the carrying capacity of an area, what defines an 'area'? A farm? A village? A valley? A region? A country? A continent? To some extent, what determines the 'domain' is a matter of social or political fact – what institutions of mutual support and practices of solidarity are in place. But it could also be determined by judgements of what institutions and practices could be and ought to be in place. It is worth adding that when we think of the area of a city or a rich country, we do not think just in geographical terms, but in terms of the penumbra – its economic pulling power, but an area in which poor people are starving is often thought of as just that – a geographical area that is meant to sustain its population completely. But such differences of perception are in reality reflections of political and moral decisions.

Underlying the above reply to the objection is an assumption: the world as a whole can carry the current global population. Clearly, there is an upper limit, and population policies need to take that into account. One of the main arguments for development for the poor is precisely the 'demographic transition' to smaller families and therefore the possibility of stabilisation within the global carrying capacity. That this can still be done seems generally to be accepted by experts.

But if someone really did think we had already reached the global carrying capacity and that was his or her reason for letting the poor who are hit by famine die, the reply would have to be slightly different. Unless one was prepared to engage in a wholesale reassessment of human priorities, of the general nature of environmental destruction caused by the patterns of affluence and so on, letting the poor die will seem like an arbitrary and selective policy in which those deaths are merely a means to the rest of humanity's continued ways of affluence. (Consider the patterns of food production throughout the world

designed to sustain our northern palates, which could be changed to be far more productive of basic foods for all.)

What about the 'utilitarian' argument that in the long run more good comes from letting people die in famines? Two questions arise immediately. Even if it is true, does that make it right? And is it true?

Supposing it was the case that enabling people to survive a famine meant that they would continue to live a life of suffering, produce more children in an already overcrowded area who will also suffer, and that the net balance of suffering in the world is more than if they died and did not have these children. Does that settle the matter? Hardly. The duty to help those in need is to be understood as a duty owed to them – not a duty to produce the greatest amount of overall good which (normally) happens to mean helping those in need. One of the difficulties with utilitarian justification for actions such as helping others in need is that it gives the wrong reasons for helping them; namely, helping them just happens (usually) to be the best way of pursuing an overall goal, which is the maximum good for all. One of the advantages of Shue's 'rights' approach and that of Kantian respect for others over Singer's implicitly 'utilitarian' principle is precisely that they both locate the sources of the duty of helping in the rights or claims of particular others. Apart from any other arguments for a duty to help those in need, such as appealing to the rights to life, it is also worth nothing that a poor person wants to live and to escape from the threat of death from famine – and may well want this even if s/he knows that life may be grim later. To dismiss this because we know better that his/her life is not worth continuing is an unacceptable form of paternalism.

In any case, is it true generally that helping people to escape from famine will lead to a worse overall result for them, their children and others in the area or in the planet as a whole? That all depends on what is done. As I noted above, if famine relief is all that is provided, that might be so. But the ethical argument is about doing much more than that in the way of appropriate development policies. And if these policies are pursued, then the results would not be worse, but better than if nothing were done.

CONCLUSION

The question we return to is: can these policies be pursued? The answer is: yes, if we have the will to. We could have the will to, if

we believed sufficiently firmly that those with the resources to do so, ought to do so. The purpose of this chapter has been to sketch the form of an argument for that judgement, a form of argument which combines an ethic of caring with a global interpretation of that principle. It is not an argument that each one of us should care as much as we can to the point of severe sacrifice of what we hold dear in our lives. But it is an argument that, if enough of us believed the main moral arguments, pulled together, pressured our governments and so on, there would be the collective will to make the world a moral community in which what happened in one part really did matter to others in another part. It would then be possible to alleviate almost all world hunger, barring extreme cases that are unavoidable, including the immediate impacts of unavoidable famines. This would not, of course, happen tomorrow or next year, but on a time-scale that is realistic and optimistic.

In that sense, a world without hunger is an ethical imperative. And if my arguments in the last section have been correct, we should not treat famines any differently from an ethical point of view. If famines can be avoided, they ought to be, and when they occur, the hunger, disease and death that would occur if we did not intervene ought also to be prevented. So a world without famine is also, so far as is possible, an ethical imperative too.[26]

Notes

1. My dictionary in fact gives a second definition of famine as 'lack of bodily nourishment; starvation', and this certainly chimes well with the idea that famines are not merely an external shortfall, but the hunger/starvation that is caused by it. In this chapter I use the word 'famine' to indicate the food shortfall itself rather than what it causes.
2. Singer, P. (1972) 'Famine, Affluence and Morality', *Philosophy and Public Affairs*, vol. 1, no. 3; reprinted, for example, in W. Aiken and H. LaFollette (eds), *World Hunger and Moral Obligation* (Princeton, NJ: Princeton University Press), 1977. A modified version appears in 'Rich and Poor', ch. 7 in P. Singer, (1977) *Practical Ethics* (Cambridge University Press). Some of the details are taken from the later version.
3. Later, Singer modifies the principle, adding 'very' to 'bad' and changing 'importance' to 'significance' – changes he adopts in the later version in *Practical Ethics*. Since hunger and so on is very bad, I shall assume this version in the discussion. Although the radical implications of 'significance' and 'importance' may not be quite the same, the general implications for changed priorities of action are much the same either way.

4. See, for example, articles in W. Aiken and H. LaFollette (eds) (1977), *World Hunger and Moral Obligation* (Princeton, NJ: Princeton University Press).
5. This really requires a more detailed discussion of what we 'need' for the necessities of life, reasonable comfort and central projects. Though there is a significant subjective element here, the point remains that most people who are moderately well-off could use more of their time, money and so on and not suffer loss of quality of life – the reverse, if anything. See my work mentioned in Note 26.
6. See Singer, *Practical Ethics*, ch. 8. This raises a new set of issues to do with economic violence that I do not pursue here. For the 'negative actions/negative violence' theme, see, for example, J. Harris (1980) *Violence and Responsibility* (London: Routledge).
7. The best source for the Aristotelian approach is David Crocker's extensive exegetical articles on Sen and Nussbaum's work on 'development ethics', especially D. Crocker (forthcoming) 'Hunger, Capability, and Development', in W. Aiken and H. La Follette (eds), *World Hunger and Moral Obligation* (2nd edition Princeton, NJ: Princeton University Press). See O. O'Neill's work in (1986) *The Faces of Hunger* (London: Allen & Unwin) for the Kantian approach.
8. Similarly we can adapt the 'negative actions' thesis: if causing suffering (and so on) is wrong, then letting it continue or happen is wrong. See Note 7.
9. H. Shue (1980) *Basic Rights: Subsistence, Affluence and US Foreign Policy* (Princeton, NJ: Princeton University Press).
10. Shue, ibid., p. 19.
11. See, for example, D. Luban 'Just War and Human Rights', in C. Beitz *et al.* (eds), *International Ethics* (Princeton, NJ: Princeton University Press).
12. See T. Pogge (1989) *Realising Rawls*, Part III (Ithaca, NY: Cornell University Press); and C. Beitz (1979) *Political Theory and International Relations*, part III (Princeton, NJ: Princeton University Press).
13. See, for example G. Harman (1977) *The Nature of Morality: An Introduction to Ethics* (Oxford University Press).
14. R. Nozick (1977) *Anarchy, State and Utopia* (Basic Books), ch. 7.
15. I am grateful to John Toye for pointing this out to me, and indeed for many valuable comments on the rest of the paper.
16. I. Kant (1948) *The Ground Work of the Metaphysic of Morals*, ch. 2. (many editions: see, for example, H. Paton (ed.) (1947) *The Moral Law* (London: Hutchinson).
17. O'Neill, *The Faces of Hunger*, *op. cit.*
18. See, for example, Harman, *The Nature of Morality*; and C. Brown (1992) *International Relations Theory: New Normative Approaches* (Brighton: Harvester Wheatsheaf) and J. Thompson (1992) *Justice and World Order* (London: Routledge) for useful discussions of 'communitarian' approaches contrasted with the 'cosmopolitan' approaches underlying the 'global ethics' position advocated here.
19. See, for example, Harman, *The Nature of Morality*; R. Brandt (1967) 'Relativism', in P. Edwards (ed.), *Encyclopaedia of Philosophy* (London: Macmillan); and C. Beitz, for an extended discussion of the realist

position in (1979) *Political Theory and International Relations* (Princeton, NJ: Princeton University Press); and H. Bull (1977) *The Anarchical Society* (London: Macmillan) for a useful account of the 'internationalist' position and alternatives.

20. Here I adopt the useful distinction used by Hedley Bull in H. Bull (1979) 'Human Rights and World Order', in R. Pettman (ed.), *Moral Claims in World Affairs* (London, Croom Helm).
21. Quoted from P. Hein in F. Barnaby (ed.) (1988) *Gaia Peace Atlas* (London: Pan), p. 192. I prefer to say: we are global citizens with local souls.
22. See, for example, P. Bauer (1984) *Reality and Rhetoric* (London: Weidenfeld & Nicolson), and other writings for a variety of arguments against aid.
23. R. Riddell (1987) *Foreign Aid Reconsidered* (London: James Currey).
24. G. Hardin (1977) 'Lifeboat Ethics: The Case Against Helping the Poor', in W. Aiken and H. La Follette (eds), *World Hunger and Moral Obligation* (1st edn) (Englewood Cliffs, NJ: Prentice-Hall).
25. See, for example, J. Fletcher (1977) 'Give If It Helps but Not If It Hurts', in W. Aiken and H. La Follette (eds), *World Hunger and Moral Obligation.*
26. For related discussions of ethical issues to do with world poverty, see also N. Dower (1983) *World Poverty Challenge and Response* (Ebor Press); 'World Poverty', in P. Singer (1991) *Companion to Ethics* (Blackwell); and 'Global Hunger: Moral Dilemmas', in B. Mephan (ed.) (forthcoming) *Food Ethics* (Aldershot: Gower).

Part I
Historical Perspectives

3 Was the Great Famine Just Like Modern Famines?

Cormac Ó Gráda

In Ireland, drawing analogies between the Great Famine of the 1840s and modern 'famines that kill' has become commonplace. Sometimes the analogies are prescriptive, and are concerned with raising Third World consciousness in Ireland. Sometimes they are historical, linking Irish generosity towards famine relief to Irish memories of the past. In truth, the historical links are less strong than some of us might like to think; publicity and campaigning have transformed them into a kind of invented tradition. There is no harm in this – on the contrary. Yet history never quite repeats itself, and the contexts of Ireland's famine and modern, mainly African, famines are quite different. Superficially, of course, all famines are alike. But some of the differences are worth reflecting on.

EXCESS MORTALITY

First of all, to note that modern famines are less murderous than the Great Famine is not to trivialise them.[1] About a million people died as a direct result of the potato failures in the 1840s. By comparison, the numbers perishing in many highly-publicised Third-World famines of the recent past are modest (Iliffe (1987) pp. 157, 255; Seaman, 1993). For example, the Sahel famine of 1973/4 killed perhaps 100 000; the famine in Darfur, western Sudan in the mid-1980s killed somewhat fewer than 100 000 (de Waal, 1989). One guess at excess mortality in the famine-affected areas of Ethiopia in 1973 puts it at 40 000; another puts excess deaths in Ethiopia as a whole in 1972–4 at about 200 000 (Seaman (1993), p. 29; Kumar, (1987) p. 23). The official death toll in Bangladesh in 1974 was 26 000; but the real toll was very much higher, perhaps one million (Sen (1981) p. 134). However, all four occurred in areas with bigger populations than Ireland in 1845.

Two recent African famines are exceptional in this respect. The death tolls from war and famine in Biafra in 1968–70 probably reached a million people (Iliffe (1988) p. 251). Reliable estimates of famine deaths in Ethiopia in 1982–5 are lacking. In 1987 Kumar argued for a toll of at least one million, though the information reported more recently by Seaman suggests a smaller number (Kumar (1987) p. 42; Seaman (1993) pp. 30–1). One has to reach further back for other disasters on the Irish scale. The Soviet famine of 1921–2, Stalin's Ukraine famine of the 1930s, and the Great Bengali Famine of the 1940s each killed many more people than the Great Irish Famine, while the Chinese Great Leap Forward famine of 1959–62 is in a macabre league of its own (Sen (1981), pp. 86, 116, 134, 195–216; Wheatcroft and Davies (1994) pp. 62–3, 67–77; Ashton, *et al.*, 1984).

In *Why Ireland Starved*, Joel Mokyr proposed a redefinition of poverty in terms of the likelihood of 'a random individual at a random point in time dropping below subsistence' (1985, p. 15). A plausible implication of this approach is that the eradication of famine should be a gradual process. As the proportion of those at risk in a particular region falls, its last famines should be more in the nature of whimpers than bangs. History offers some support for such reasoning. John Iliffe's claim that between 1927 and the end of the colonial era Africa (Ethiopia apart) saw very few 'famines that kill' fits the scenario. Iliffe points to 'effective government, good transport, wider markets and some increase in average wealth' as the main reasons for this. Fogel's reworking of English demographic data between the 1750s and 1840s, which shows the share of 'crisis' mortality within total mortality declining from nearly 6 per cent in the seventeenth century to 3 per cent in the eighteenth and 0.6 per cent in 1800–71, points in the same direction (Fogel, 1989).[2]

Ireland's pre-Great Famine famines also follow such a neo-Malthusian pattern. Mortality had been considerable in 1800–1 and 1817–19 (perhaps 40 000–60 000 in each case), but excess mortality from the famines of 1822 and 1831 was on a far smaller scale. However, the Great Famine, which brought the age of famines in Ireland – and in Western Europe – to a dramatic end, does not fit the pattern. This highlights its exceptional nature and its 'ecological' aspect – the repeated destruction of a potato crop which had been both productive and quite reliable before 1845.

Modern evidence also fails to square with a neo-Malthusian analysis, though for a different reason. In recent decades, famines have been eradicated in China and India, but the last 'famines that kill' in

those countries were major ones indeed. In many parts of Africa, too, war and political instability brought a return of famine after Independence (Iliffe (1987) pp. 156–8; 250–3; Drèze, 1991). Is it too much to hope that just as the Irish Famine marked the virtual end of famine in Western Europe at least, the modern famines listed above reflect the last whimpers of what Iliffe has dubbed 'conjunctural poverty' in Africa (Iliffe, (1987) p. 6)?

MEDICINE AND NOSOLOGY

Relatively few died of literal starvation during the Great Famine; dysentery, typhus, typhoid fever, and other infectious diseases did most of the damage. The historiography makes much of the heroism of medical personnel, but it was mostly in vain: doctors could achieve little against infectious diseases at that time (McKeown, 1979). How much difference would better medical knowledge have made? Would the famished simply not have died of something else? Research is lacking on the issue, but the evidence of Third-World famines may tell us something.

The evidence of modern famines suggests that medical technology alone is not enough to eliminate mass mortality. Almost invariably, there are time lags between detection and action, and red tape brings its own delays and conflicts. Famine-induced anaemia makes it difficult for people to absorb oral medicines. Ignorance on the part of those at risk is also a problem. Thus one suspects that in Ireland in the 1840s, as in modern Africa, medicine alone would have been a poor substitute for plenty of healthy food, clean clothes, proper housing, and sanitation. But modern evidence suggests that, given food, medicine can achieve much.

Another difference is that medicine has probably shifted the class structure of famine mortality somewhat since the nineteenth century. While Karl Marx was broadly correct in claiming that the Irish Famine 'killed poor devils only', many who were by no means poor succumbed too. At greatest risk were those who came into contact with the diseased in the course of their work, such as the clergy and medical personnel. Such people today are largely immune from the externalities once caused by famine. Modern Irish aid workers are similar enough to the priests and the medical personnel of the Famine era to carry the point. Of the hundreds of volunteers who have worked in Africa since the 1980s, one was murdered in Somalia and

several were attacked by famine fevers (McClean (1988) pp. 22, 34–8), but so far as I can ascertain none so far has died of famine-related illnesses.

The difference may have a broader implication. The danger of contracting famine fever through contact with the poor or through inhaling infected air was a major preoccupation of those 'comfortable classes' during the Great Famine. Long before the Famine, appealing to the self-interest of the better-off in towns and cities was a common and effective strategy of those seeking help for the poor. During the Famine it prompted the creation of fever hospitals, the financing of the Board of Health, and the control of begging in Dublin and in Belfast. Disquiet reached new heights during the cholera epidemic of 1849. One suspects that such enlightened self-interest on the part of elites counts for less in parts of the Third World today.

WAR AND PEACE

The poem that begins with the line '*Ni cogadh ná caragail fhada idir ard righthibh* (it is not war nor enduring strife between high kings)' describes another great Irish famine, that of 1740–1. Earlier famines had been the product of invasion and civil strife, but Ireland was tranquil in 1740. The equation between war and famine has a modern ring. 'In much of Africa,' writes Alex de Waal, 'war has become synonymous with famine' (1993; p. 33). War increases the vulnerability to famine in obvious ways, such as by destroying crops, deflecting economic activity, frustrating relief, and dampening democracy and protest. Civil conflict also produces its IDPs (internally displaced people) and refugees. However, as in the 1740s, Ireland faced no civil war or major unrest in the 1840s. Indeed, some contemporary observers spoke of a delusive calm in Ireland on the eve of the Famine. Faction fighting and rural strife, so common in the 1820s and 1830s, had been quelled by an alliance of police and clergy, and ordinary crime was also in decline. The inoffensive 'rising' of 1848 took place when the worst of the Famine was over. Therefore disrupted communications and military distractions were not a factor in Ireland during the Famine.

This was all quite unlike the situation facing the poor in much of Africa in recent decades (Drèze and Sen (1989), p. 274–5). The horrors of Biafra, Ethiopia or Somalia immediately spring to mind. Discussing Mozambique in the 1980s, de Waal writes that some 'analysis' of

famine there amounts to 'little more than a catalogue of Renamo vandalism' (de Waal (1993), p. 33).

RICH NEIGHBOURS, POOR NEIGHBOURS

A fourth difference is that today's famine-stricken areas are located in the most economically backward regions of the world where, seen from afar at least, neighbouring regions seem to be nearly as poor as the region directly affected. But one of the striking things about the Irish Famine of the 1840s is its geographical setting: it occurred in the backyard of a relatively prosperous region, by world standards. However, economic history suggests the need for perspective here. We should not overlook the harsh conditions faced by the British poor at the time, and the poverty of even smug, mid-Victorian Britain by our own late- twentieth century standards.

How poor was Ireland in the early 1840s compared with, say, Ethiopia or Somalia today? Only the crudest answer is possible. However, Irish economic historians believe that average income in Ireland just before the Famine was somewhat less than half that of Great Britain, and British economic historians know that incomes in Britain have increased eight-or tenfold between then and now. In the late 1980s, moreover, the average purchasing power of incomes in Ethiopia was about 3 per cent of Great Britain's, and in Somalia 6–7 per cent (Heston and Summers (1991), table 2). Taken together, these figures indicate that Irish living standards on the eve of the Great Famine lay somewhere between those of Ethiopia and of Somalia a few years ago, though closer to Somalia's. The comparison also suggests that the rich world today has a much greater margin to spare than Britain did in the 1840s. According to the kind of political arithmetic just described, living standards in Britain in the 1840s parallelled those of Indonesia or Egypt today. Without seeking to absolve those in power in Westminster of responsibility, does this not make the persistence of famines in the Third World in the 1980s or 1990s a greater scandal than its presence in Ireland in the 1840s?

IDEOLOGY AND BUREAUCRACY

The philosophical context is not the same today as in the 1840s. Today the *Economist* does not dismiss calls for famine relief in Africa

with the disclaimer that 'it is no man's business to provide for another', or assert that official intervention would shift resources from the more to the less deserving, since 'if left to the natural law of distribution, those who deserved more would obtain it'. Nor would any leading economist calmly defend policies that 'reduce the poor to starvation' and remark that they would provide 'illustrations valuable to a political economist' (as Nassau Senior did). Close reading of the evidence suggests that the influence of such ideas on public opinion and policy was considerable (Gray, 1994, 1995). There is *some* truth, then, in John Mitchel's claim that in the 1840s 'Ireland died of political economy'. In India later, similar attitudes would also constrain relief. There the machinery necessary to eradicate famine was available long before it was put to use. Why? Because those in power believed that 'India would have been pauperised, its work ethos shattered, and an importunate populace of government dependents would have been created'. To relieve one famine would only 'have postponed a calamitous reckoning when a swollen population multiplied beyond its subsistence' (Klein, (1984) p. 189).

While the attitude to relief is less harsh everywhere in the late 1990s, ideology can still exacerbate crises or the risk of crises. For example, the structural adjustment package imposed on Somalia in the 1980s by the World Bank and the International Monetary Fund is held to have destabilised that country and weakened its resistance to crisis. But if ideology can exacerbate famines, how can bureaucracy relieve them? History suggests that 'good' government can help to avert famines. Kenya and Botswana in the mid-1980s, Bangladesh in 1979 and 1984, and Maharashtra in India in the early 1970s are well-known cases in point. Now, in these instances, the institutional infrastructure was there to begin with. The same could not be said of, say, Ethiopia in the 1970s or the Sudan in the 1980s.

However, I believe that, in this respect, Ireland in the 1840s was at no disadvantage. The mandarins of Whitehall and Dublin Castle and their representatives were certainly less corrupt and probably more sophisticated than most Third-World bureaucracies today. In Ireland, official monitoring and newspaper accounts of the second harvest failure in the summer of 1846 offered an adequate 'early warning system' of looming disaster. Corruption, favouritism and misallocated resources – that is, agency problems – were not unfamiliar at local level in Ireland, but the country was well policed and well stocked with workhouses and dispensaries. In Ireland, the problem was less institutional than ideological.

FOOD SHORTAGES AND ENTITLEMENTS

Amartya Sen's 'entitlements' approach is too familiar to this audience to require much elucidation. The key point is his claim that modern famines such as the Bengal famine of the early 1940s or the Ethiopian famine of 1973 were more the product of a distributional shift in food entitlements than any 'abnormal reduction in food output' (Sen (1981), chs 6–7; also Drèze and Sen, (1991), ch. 2). The argument has not gone uncontested (for discussion and references, see Devereux (1993), pp. 76–81; Osmani, 1995), but it also has some resonance for Ireland in the 1840s. One of the most evocative images of the Irish Famine is described by Drèze and Sen (1989, p. 22) as one of 'English consumers attract[ing] food away, through the market mechanism, from famine-stricken Ireland to rich England, with ship after ship sailing down the river Shannon with various types of food'. Not all the food left. Even in Skibbereen in December 1846 'notwithstanding all this distress, there was a market plentifully supplied with meat, bread, fish, in short everything' (Woodham-Smith (1962), p. 165).

However, this enduring, populist image of the Great Famine as starvation in the midst of sufficiency oversimplifies. It is somewhat ahistorical in that it ignores the inequalities at the roots of Irish society in normal times: before the Famine, few of those who died around Skibbereen would have been able to afford the meat, bread and fish referred to above (compare Osmani (1995), pp. 276–7). And, as Austin Bourke has shown (1993, p. 168 – and see Table 3.1 here), dwelling on the exported grain masks the reality that at the height of the Famine grain exports were dwarfed by imports of cheaper grain, mainly maize.

Table 3.1 The Irish grain trade, 1843–8 (in 1000 tons)

Date	*Exports, total*	*Imports*	
		Total	*Maize*
1843	480	15	1
1844	424	30	1
1845	513	28	7
1846	284	197	122
1847	146	889	632
1848	314	439	306

The entitlements approach to famine is a useful reminder that the exported corn belonged not to the landless or near-landless masses, but to Ireland's half a million farmers, who would certainly have resisted the lower prices that an export embargo would have brought in its train. Traditional interpretations of the Irish Famine emphasise the divisiveness central to famines everywhere, but they have tended to let the farmers off the hook in their condemnations of governments and landlords.[3]

A second difficulty for the entitlements approach is the long-drawn-out character of the Irish Famine. The transfer implicit in that approach, instead of being a one-off surprise, would have become a kind of repeated game, with unpredictable consequences for the farmers' output reaction.

Third, the entitlements hypothesis and Sen's conviction that modern famines are easily relieved reflects a belief that typically only a small fraction of the population – 5 or 10 per cent at most – is affected (Sen, 1995). This may be true today, but here again the massive scale of the Great Famine sets it apart. In a context where over a third of the population depend almost exclusively on the food that has failed repeatedly, the redistribution required to save all lives is a more daunting proposition.

In the history of the Great Irish Famine, the issue of grain exports has more symbolic than real importance. In order to see this, let us suppose that the transfer of all the exported grain from farmers to the starving masses had been costless both in terms of resources spent on collection and future output foregone. Alas, the ensuing increased supply of food would have made only a small dent in the gap left by *Phytophthora infestans*. On the eve of the Famine the potato harvest yielded about 12–15 million tons annually, half of which went to human consumption (for an overview of the potato's importance and the shortfalls in 1845, 1846 and later, see Bourke (1993), chs 4–8; Solar, 1989). Thus the 430 000 tons of grain exported in 1846 and 1847 must be set against a shortfall of about twenty million tons of potatoes in those same years. Allowing the exported grain four times the calorific value of potatoes, and ignoring animal feed requirements, the exported grain would still have filled only about one-seventh of the gap left by the potatoes in Ireland in these two crucial years. Thus though official neglect and endemic injustice played their part in Ireland in 1846 and 1847, there is no denying that the Irish Famine was, at least in those years, also a classic case of food shortage. Only by adopting an all-UK perspective to the problem in those

years might an interpretation stressing entitlements instead of food availability be defended: but that would run against two strong historiographical traditions. However, deaths from starvation continued during 1848 and 1849. Those deaths, confined largely to the west of Ireland and occurring well after Whitehall had washed its hands of the Famine, seem to fit an entitlements approach better.

MASS EMIGRATION

Mass emigration is another legacy of the Great Famine, and one that also distinguishes it from modern Third-World famines. All famines induce people to move, in search of food and in order to escape disease; there is much movement from rural areas into the towns (see, for example, Vaughan (1987) pp. 32–3). But a distinction must be made between such local movements, mainly by adult males from more to less afflicted areas, and permanent long-distance migration. For many of the Irish poor in the 1840s, unlike the Somali or Sudanese poor of today, mass emigration provided a welcome safety-valve.

Estimates of Irish famine-induced emigration can only be approximate, for two reasons. First, the outflow was imperfectly enumerated at the time. Second, an unknown but significant share of the actual movement would have occurred in any case. Emigration during the early 1840s had been particularly high: 50 000–100 000 a year. Still, Famine emigrants surely numbered half or more of the 1.5 million or so who emigrated between the mid-1840s and the early 1850s. The Famine emigration differed from what had gone on before; probably the poorest of the poor perished in Ireland, lacking the funds and the knowledge to emigrate, while many of those who left were people who could scrape together the funds, or who were compensated for giving up their holdings, however small.

Much has been written about the terrible conditions endured by these 'economic refugees' and the high mortality on 'coffin ships'. But such mortality was not the norm. An analysis of migrant mortality on the passage between Europe and New York between 1836 and 1853 from a sample of contemporary passenger lists reveals that neither the Irish as a group nor the famine years stand out; the record of German ships in 1847 and 1848 was much worse, and curiously, 1849, not 1847, produced the highest mortality overall (Cohn, 1984; 1987). In Table 3.2, Irish ports and Liverpool represent Irish emigrants. True,

the death rate out of Liverpool was higher in 1847–8 than in 1845–6, but the mean mortality rate was still less than 2 per cent.

Table 3.2 Mortality on New York-bound ships, 1847–53

	Irish ports		*Liverpool*		*France*		*Germany*		*London*	
Year	*MR*	*Obs.*	*MR*	*Obs.*	*MR*	*Obs.*	*MR*	*Obs.*	*MR*	*Obs.*
1845	–	–	0.76	13	0.61	8	0.96	5	3.57	1
1846	–	–	0.91	18	1.18	11	1.07	13	1.28	5
1847	1.33	5	1.73	17	0.83	6	3.77	5	1.09	3
1848	2.74	5	1.36	34	1.35	11	3.36	2	1.04	2
1849	3.36	14	3.33	47	1.74	7	1.51	8	0.56	1
1850	1.16	7	1.54	50	0.55	3	4.41	3	1.89	2
1851	0.67	16	1.28	78	0.79	12	1.05	8	0.52	8
1852	3.59	2	0.88	67	0.74	16	0.55	5	0.96	12
1853	0.62	5	1.73	54	1.30	18	1.01	27	1.23	10

Notes: MR = mortality rate (per cent); Obs. = observations in sample.
Source: Worksheets supplied by Raymond Cohn.

Other data, it is true, highlight 1847, and mortality among passengers who chose ships bound for Maritime and Quebec destinations (nearly half of the Irish who crossed the Atlantic in Black '47, but only 10–15 per cent thereafter) was higher than those bound for New York. In the circumstances, the outcome is an impressive achievement. The journey to the New World may have taken longer than it would today, but most of Ireland's 'boat people' eventually reached their destinations in North America or in Britain. None of this is to deny that conditions on the passage were harsh and unpleasant, or that some desperate emigrants were roundly exploited by unscrupulous shipowners and runners in Ireland, Liverpool and elsewhere. But the fundamental comparative point to make here is that surely many of today's famine-stricken poor would give up every penny they have in return for manual jobs and poor accommodation in North America, Japan or Western Europe. Reflecting on the alternative offered by Third-World experience tells us that the Irish were 'lucky' to emigrate and to be allowed in, and that many more would have died in Ireland had this safety-valve not existed.

TRADERS AND FAMINES[4]

As Drèze and Sen remind us (1989, p. 89), this is a topic 'that is not always approached dispassionately'. Part of the problem is that the

empirical evidence for and against the traders is mixed. Traders make their money by moving goods from low to high price areas and by speculating correctly on price movements over time. If markets help to even out scarcities, regional or temporal, that would seem a 'good thing'. But do markets break down during famines? There is evidence to suggest that speculation can be destabilising in famine situations. Sen blames the situation in Bengal in 1943 largely on 'speculative withdrawal and panic purchase of rice stocks... encouraged by administrative chaos', while Ravallion claims that 'excess mortality in Bangladesh during 1974 was, in no small measure, the effect of a speculative crisis' (Sen (1981) pp. 76–7, 148–9; Ravallion (1987), p. 19, ch. 3; Rashid, (1980)).

What of Ireland? It is easy to find contemporary criticisms of rapacious traders. The huge rise in grain prices in late 1846 prompted one of Trevelyan's informants to tell him in late December 1846 that '£40,000 to £80,000 were spoken of as being made by merchants' in Cork, and to hope that government would intervene to check 'the extortionate prices'. Bessborough, the Lord Lieutenant, informed Prime Minister Russell a few weeks later that 'there is no great doubt that the merchants in the great towns have taken advantage... and in some places are keeping up the prices by the most unfair means' (Woodham-Smith (1962) p. 167; Black (1960) pp. 118–19). Such exploitation is the stuff of fiction and oral history too. Yet hard evidence on how traders behaved in crisis times is lacking.

Before offering some tentative clues regarding the behaviour of traders and moneylenders, three simple points based on elementary price theory are worth bearing in mind. First, supply shocks would have caused monopolies to increase their prices *less* than firms in a competitive industry. Second, higher prices induced by supply shocks would have *reduced* the profits of monopolists. Third, the drastic fall in the purchasing power of their customers would have induced traders – other things remaining the same – to reduce, not increase, their prices. These theoretical points suggest that some contemporary observers may have mistaken adverse supply shocks for monopoly power. On the other hand, some of the criticism may have referred to trades (such as that in Indian corn) that were unfamiliar, and therefore more amenable for exploitation.

There are several ways to interpret the claim that markets worked poorly during the Famine. The failure could have been temporary (for example, early on, as in late 1846, when the trade in Indian meal was new); it could have been partial (for example, restricted to remote

areas); or it could have been intertemporal (for example, agents hoarded, or held on to, their stocks for too long). Few of the business accounts of Famine traders that might shed light on these possibilities have survived: here I report on the analysis of some of the plentiful food price data from the period.

In a well-integrated market, persistent price differences between regions stem largely from transport costs. Therefore, if markets continue to function well during a harvest failure, a reduction in the price variation (as measured by the coefficient of variation) across regions such as counties or provinces should follow, since the fixed transactions cost element should decline as a fraction of the whole. However, if markets become more segmented, a *rise* in the coefficient of variation might be expected. An analysis along these lines of short-term changes in the spatial variation in rice and wheat prices across India between the 1860s and the 1920s (suitably corrected for non-stationarity) is consistent with the hypothesis that markets were integrated and did not exacerbate regional shortages during potential crisis (Ó Gráda, 1995).

Table 3.3 Regional variation of potato prices, market town data, 1840–6

Province	*Obs.*	*1840*	*1841*	*1842*	*1843*	*1844*	*1845*	*1846*
Mean price per stone (pence)								
Leinster	126	3.09	3.02	3.02	2.66	2.92	2.98	4.68
Munster	76	3.09	2.87	2.95	2.73	2.70	2.82	3.76
Ulster	87	2.70	2.59	2.66	2.21	2.32	2.56	4.12
Connacht	98	2.74	2.62	2.78	2.19	2.26	2.48	3.37
Ireland	387	2.83	2.70	2.78	2.38	2.49	2.65	3.94
Coefficient of variation								
Leinster		.283	.247	.279	.264	.241	.211	.208
Munster		.376	.304	.288	.288	.272	.281	.224
Ulster		.242	.211	.250	.333	.257	.192	.214
Connacht		.269	.263	.280	.292	.249	.222	.250
Ireland		.344	.308	.321	.351	.319	.285	.294

Source: Derived from data in BPP, 1846.

A look at potato prices in almost four hundred Irish towns between 1840 and 1846 (BPP, 1846) argues in the same direction. These numbers are not ideal for our purpose; they extend only as far as the

harvest of 1845, the first to be affected by blight. Table 3.3 shows that in all four provinces prices were higher in 1846 than in any other year, as expected. But in no province was the coefficient of variation highest in that year, an outcome consistent at least with well-functioning markets. Unfortunately, the Blue Books do not contain similar information for late 1846 or 1847.

Data on grain prices also survive, and are probably of higher quality in that a grain crop such as wheat or oats was more homogeneous than the potatoes underlying the information above. In another place I have compared grain prices (oatmeal and wheat) at the height of the Famine in some towns for which more or less continuous weekly market data are provided in the *Farmers' Gazette*. Trends in the price of oatmeal in Dublin, Cork, Galway and Belfast (that is, a maritime market in each province) between mid-1846 and April 1847 suggest that, while there were occasional local inconsistencies, short-term fluctuations were very similar. The price of oatmeal was generally lower in Belfast than in the other three towns, but there is little to note about movements in Cork, whose merchants came in for particular criticism. I also subjected weekly fluctuations in oatmeal prices in pairs of cities to a more formal error correction model (ECM) analysis. This suggests that deviations between cities did not continue for long, ruling out persistent overcharging in one place relative to another (Ó Gráda, 1995).

Another perspective on Cork traders is provided by comparing the prices paid for Indian meal on the Cork and Liverpool corn markets between July 1846 and June 1847, as reported weekly in the *Mark Lane Express*. In this case, the outcome does point a finger of suspicion at Cork grain merchants, since the ratio of the mean Cork to Liverpool price in late 1846 and early 1847 was considerably (10–15 per cent) higher than in the following months. Tentative evidence, then, that the market in Indian corn did not work smoothly at the height of the crisis; but whether the outcome reflects a conspiracy on the part of Cork's grain merchants or merely delays in maize reaching Cork remains unresolved.

The outcome is hardly conclusive, since it does not refer to the more remote rural areas. Most smallholders in Ireland grew at least a few roods of oats before the Famine, so informal markets in oats are bound to have existed. But retailers willing to purchase, grind and store Indian corn (an unfamiliar food) during the Famine are another matter. In October 1846, when the Famine was really beginning to bite, one senior poor law official from Cork alerted Trevelyan about

how hard it was to procure retail supplies in 'remote' districts, and about the lack of small retail outlets for corn. The result was that the poor were forced to travel considerable distances to buy food. Given that most poor people moved about on foot, knowledge about prices was hardly perfect.

Table 3.4 gives a rough idea of the spread of traders across the four provinces on the eve of the Famine. Millers and bakers proxy the grain trade; and those on merchants and shopkeepers commercialization more generally. The outcome is broadly as expected, with Connacht emerging as economically the most backward province. But the comparison probably does not address adequately the remoteness of parts of the far west such as 'Kilmoe and Crookhaven... [where] no mill or bakery existed within thirty miles' [Woodham-Smith (1962), p. 137].

Table 3.4 Millers, bakers and traders in Ireland, 1841

	Millers	*Bakers*	*Traders*
Per 10 000 population			
Leinster	8	13	25
Munster	3	8	22
Ulster	7	7	10
Connacht	4	4	9
per 100 square miles			
Leinster	32	53	103
Munster	11	30	83
Ulster	28	31	45
Connacht	12	13	30

Note: This table includes those defined in the Census as 'shopkeepers', 'merchants' and 'flour merchants'. Thus 'huxsters' and 'dealers' are omitted.

What of hoarding and speculation? As a preliminary test in *Ireland Before and After the Famine* (1993; ch. 3) I compared seasonal movements in Dublin potato prices before and during the Famine. The test, inspired by an analysis of late-medieval corn prices, was to compare the seasonal rise in prices from autumn trough to summer peak before and during the Famine. A greater proportionate rise in prices from trough to peak than before would constitute prima-facie evidence for hoarding. The outcome of this, admittedly limited, test did not support the hypothesis that speculation made a bad situation worse.

Finally, before leaving traders, a few comments on the provision of credit to the poor during the Famine. I will limit the discussion here to pawnbrokers. In Ireland, pawnbrokers operated under relatively liberal laws, which allowed them to charge higher effective rates than their British counterparts. The result was a thriving Irish legal pawnbroking sector. Pawnbrokers had made inroads into much of the west and south before the Famine, and their humble clients were from the strata most likely to be hurt by the Famine. The typical pledge was in clothing and for the equivalent of a few days' wages. An official account (IUP, 1968, vol. iv) usefully captures both the patterns of the business in normal times – its seasonal rhythms, the type of goods pledged, and so on – and the variation in the regional incidence of the Famine. Typically, pledges mounted in the summer months, and redemptions exceeded pledges in the autumn.

Did pawnbroking thrive during the Famine? Some sense of the extent of the business before and during the Famine is captured in Table 3.5. The aggregate number of tickets issued by legal Irish pawnbrokers fell by over a fifth between 1846 and 1847, and the total loaned by almost a third. Neither those numbers nor individual accounts support the notion that the Famine was a golden opportunity for pawnbrokers. Surely the most plausible interpretation of them is that as creditworthiness dropped, business fell back in tandem.

Table 3.5 Pawnbroking during the famine

Year	*Tickets issued*	*Sums loaned (nearest £)*	*Average (pence)*
1843	10 517 022	1 458 839	33.3
1844	11 501 108	1 603 789	34.2
1845	13 039 882	1 849 758	34.0
1846	14 161 152	1 922 343	32.6
1847	11 081 865	1 293 332	28.0

Source: IUP, Famine volumes, IV, pp. 406–7.

Overall, our findings are not robust enough to reject outright the hypothesis that the greed of millers, mealmongers and the like exacerbated the Irish Famine, as Ravallion claims their peers did the Bangladeshi famine of 1974. The topic calls for much more work.

A LONG-DRAWN-OUT AFFAIR

Another important feature of the Irish Famine, which of course makes it difficult to fit into any neat commemorative schedule, is that it was a very long-drawn-out affair. If the second and near-total failure of the potato crop in 1846 marks the real beginning of the Great Famine, in Whitehall, Russell's Whig Administration was already in effect declaring it over in summer 1847. The lion's share of the responsibility for relieving those affected was then turned over to Ireland. Of course, the crisis sparked off in Ireland by the potato blight did not end in the summer of 1847. Famine conditions lasted for a long time after this, particularly in western countries such as Clare and Mayo (Ó Gráda (1993), ch. 3). In January 1849 a thoroughly disillusioned Edward Twistleton wrote to Trevelyan: 'others might say that we are slowly murdering the peasantry by the scantiness of relief'. At the level of macroeconomic indicators such as banknote circulation or company profits, recovery took a long time. The number of inmates in Ireland's bleak workhouses, a more immediate proxy for deprivation, remained high long after 1847, and mortality did not end in 1847 either. Plenty of evidence exists, both statistical and narrative, for excess mortality in 1849 and 1850, and some would go so far as to extend the Famine into the 1850s. The Great Famine therefore had more in common with the Pharaoh's seven lean years than the better-known famines of the 1980s and 1990s. Perhaps this meant that what is termed today 'famine fatigue' was more of a problem in Ireland's case. This is implicit in the well-known efforts of the Society of Friends, who threw in the towel quite early. It is also seen in the more modest efforts of local charities.

By contrast, the Finnish Famine of the 1860s, another major catastrophe, lasted just one awful year. The latest verdict on the better-known Soviet famine of 1932–3, based on newly- available data, suggests that it too lasted about a year. Even in the case of the Great Bengali Famine, which according to Sen yielded excess deaths for several years after 1943, a recent reassessment confines excess mortality to 1943–4 (Sen (1981), p. 215; Dyson, 1993).

MORTALITY BY AGE AND GENDER

How many perish during famines is a question with both an economic and a political dimension. Famines face individuals, families and

neighbours with awkward moral choices, choices highlighted in Tom Murphy's play 'Famine'. Exploitation and neglect of the poor by the rich is compounded by exploitation of the poor by the poor. Much of the crime that occurs during subsistence crises involves neighbour stealing from neighbour, and the healthy neglecting the very old and the very young. Some of those who survive could always have done more. The 'silences' that follow famines hide this uncomfortable truth (Ó Gráda, 1994b).

As noted earlier, estimating excess mortality during the Irish famine is a tricky business. Estimating the relative impact of the crisis on men and women and on different age groups is more difficult still. Any such exercise for the country as a whole hinges on necessarily debatable assumptions about normal mortality rates, deficiencies in the 1841 census, and emigration before and during the Famine period. For what they are worth, the 1851 gender ratios implied in Wilde's Tables of Death are given in Table 3.6. Since deaths in rural areas accounted for the bulk of the total, the outcome is consistent with a slight male edge in mortality during the Famine years. An indirect estimate for the country as a whole also found that men were somewhat more likely to succumb than women, but that age-specific mortality, like normal mortality, doubled over the period 1846–51 (Boyle and Ó Gráda, 1985). The relative advantage of women must be seen against their relative deprivation, marked in nineteenth-century Ireland in normal times. What of microdata? Catholic parish registers are of little use here, because even the best of them lack detailed burial data. Protestant registers can add some insight, however. Those that survive contain the names and ages of most of the people buried. As part of a larger study of the Famine in Dublin, I have examined the evidence on burials in several Dublin city registers (Ó Gráda, 1994c). In the 1840s, about a-quarter of the people of Dublin were Protestants, and the city still contained a large Protestant working-class population, as likely to be affected by the crisis as their Catholic neighbours. A preliminary analysis of the registers of three southside parishes shows (i) that Dublin indeed experienced some excess mortality during the Famine years; and (ii) that male mortality exceeded female.

Table 3.7 summarises the data in the burial registers for two neighbouring parishes in the south of Ireland, those of Ballymodan and Kilbrogan in County Cork. These were then largely urban parishes; almost two-thirds of their people lived in the (economically depressed) town of Bandon. The parishes contained a significant Protestant

community at the time. Bandon was very badly hit by the Famine. Two broad impressions follow from its Protestant registers. First, the burials evidence confirms that the Famine did not kill only Catholics; among Bandon's Protestants the death rate was almost 60 per cent above its immediate pre-famine level during 1846–8. Second, the crisis seems to have increased male mortality more than female, but there were no striking changes in the incidence by age.

Table 3.6 Gender ratio of reported deaths, 1851 Census

Year	*Rural areas (male/female)*	*'Civic' areas (male/female)*	*Public institutions (male/female)*
1843	1.16	1.15	1.14
1844	1.15	1.14	1.10
1845	1.13	1.10	1.05
1846	1.17	1.07	1.09
1847	1.25	1.13	1.11
1848	1.20	1.11	1.14
1849	1.22	1.07	1.09

Source: 1851 Census, vol. 5(II), pp. 674–6.

Table 3.7 Burials in Ballymodan and Kilbrogan, by age and gender, 1843–51 (percentages in parentheses)

	Males			*Females*		
Age	*1843–5*	*1846–8*	*1849–51*	*1843–5*	*1846–8*	*1849–51*
0–9	34 (36)	51 (30)	24 (25)	27 (28)	40 (29)	21 (23)
10–19	18 (19)	29 (17)	19 (20)	13 (13)	21 (15)	15 (16)
30–49	8 (9)	19 (11)	11 (11)	17 (17)	13 (10)	12 (13)
50–69	13 (14)	29 (17)	24 (25)	20 (20)	27 (20)	19 (21)
70+	12 (13)	43 (25)	18 (19)	21 (21)	35 (26)	25 (27)
Total	94	171	96	99	141	92

Note: Totals include a small number of burials for which no age data were given.

What of modern Third-World famines? Several studies report a relative pro-child bias in intrafamilial allocations during crises, and the finding that male mortality rates rise more during famines is fairly general (Drèze and Sen (1989), 55–6, 79–80; de Waal, 1989). One reason for this may be the reduction in female fertility – a universal

phenomenon – and an associated fall in maternal mortality. Another reason mentioned is that healthy females store more body fat than males, and therefore can withstand deprivation longer.

The evidence on mortality by age is less clear cut. In south Asia in the nineteenth and early twentieth centuries, contrary to what might be expected, the biggest increases in mortality occurred in age-groups where normal mortality was light, that is, among older children and adults (Dyson, 1991). In a recent study of excess mortality in Darfur, western Sudan in the mid-1980s, de Waal found that child deaths rose more than infant or adult deaths (de Waal, 1989).

CONCLUSION

In sum, the Irish famine differed in many respects from modern famines. It was bigger than most, and it lasted longer. These two differences reduce the plausibility of a pure 'entitlements' approach. It occurred in peacetime. And though it was less exclusively a famine of the poorest than modern famines, its impact by gender and age was similar. Though well-documented, there is still much we do not know. I believe that a comparative approach can tell us a great deal. By this I mean not only comparisons with famines or near-famines in the 1840s, but also with famines today.

Notes

1. For surveys of the Great Irish Famine, see Woodham-Smith (1962); Ó Gráda (1993, ch. 3; 1994a, ch. 8); Póirtéir (1995).
2. Razzell's recent important critique of the Wrigley and Schofield numbers used by Fogel increases the presumption of a neo-Malthusian tapering off of 'crisis' mortality (Razzell, 1993).
3. This is not to deny that in late 1846 and early 1847 the government might have done well to purchase and redistribute foreign-bound grain; but once maize became available in quantity, importing it was a sensible alternative.
4. For a longer version of this section see Ó Gráda (1995).

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4 The Great Famine: A Simple General Equilibrium Model[1]

Pat McGregor

It is now almost a century and a half since the destruction of most of the Irish potato crop by the fungus *Phytophtora infestans* initiated the sequence of events that culminated in the Great Famine. The potato was the linchpin of the pre-Famine rural economy at this time. It has been estimated that 2.1m acres were grown (Mokyr, 1981), accounting for a third of land under tillage and a seventh under cultivation. The crop was produced intensively, generally on a small scale by smallholders or labourers who sublet land from larger farmers. The blight led to a human tide that engulfed the various attempts of the British government to provide a system of relief (Ó Gráda, 1989). It has been estimated (Mokyr, 1980) that 1.1m perished (out of a population of 8.2m in 1841), and that a similar number emigrated despite appalling travel conditions.

This chapter develops a simple general equilibrium model of famine (in the spirit of Sen's (1981) entitlement approach) to analyse the tragedy that developed in Ireland after 1845, and seeks in particular to answer three questions: Why did the system of relief works, which at their peak employed three-quarters of a million men and women, attract so many of those whom the officials considered not to be destitute? Why did these works fail so utterly in their objective? The famine period saw an understandably sharp decline in crop production but alongside this occurred a remarkable expansion of cattle and sheep: What was the economic rationale behind this?

The model of the rural economy advanced in this chapter is built around three markets: those for food, labour and land. Its presentation is followed by a detailed analysis of the impact of the blight on these markets, which concentrates on the labour market. The model is then developed to examine the consequences for the labour market of the provision of public works. The final section attempts to answer the questions raised above.

THE MODEL

We assume that a composite foodstuff, corn, is produced; at the beginning of time period 0 each agent, i, possesses an endowment of corn, $\bar{c}_{i,0}$. To be physically capable of supplying a unit of labour, c^* of corn has to be consumed. The market wage w is a piece rate and so amounts to the return for completing a series of specified tasks such as cultivating a particular acreage of corn.

The alternative to supplying the labour market is to work $I_i \leq 1$ on the domestic holding. Such labour, together with k_i acres of land produces $\bar{c}_{i,1}$ corn in the next time period via a simple Cobb–Douglas production function:

$$\bar{c}_{i,1} = dI_i^{\beta} k_i^{1-\beta}. \tag{4.1}$$

The output becomes the agent's endowment for a new optimisation exercise.

The utility function (all agents are identical in this respect) has two arguments; consumption c_i of corn only yields utility whenever $c_i > c^*$. Should consumption fall below c^*, the household falls into the starvation set. Clearly, this outcome will be avoided as long as it is feasible to do so.

The other argument of the utility function is $\bar{c}_{i,1}$, which is the level of endowment anticipated in the second period, based on the decisions taken in the first. It is not the level of consumption, which can be determined only when factor prices in that period are known. Its magnitude affects optimal allocation in the first period by imparting a sense of security then. The utility function is:

$$U_i = b(c_i - c^*)^{1-\alpha} \bar{c}_i \alpha_1. \tag{4.2}$$

If the agent's consumption falls below c^*, then s/he perishes; this is a version of the 'hard-boiled' solution as outlined by Koopmans (1957) in his survey of the standard model of competitive equilibrium.

The agent's budget constraint reflects his/her current resource position, so:

$$(\bar{c}_i - c_i)p + (1 - I_i)w - rk_i \geq 0. \tag{4.3}$$

Maximising Equation (4.2) subject to Equation (4.3) and the non-negativity constraints $I_i\, k_i \geq 0$, together with $c_i \geq c^*$ yields a series of demand functions. For food, we have:

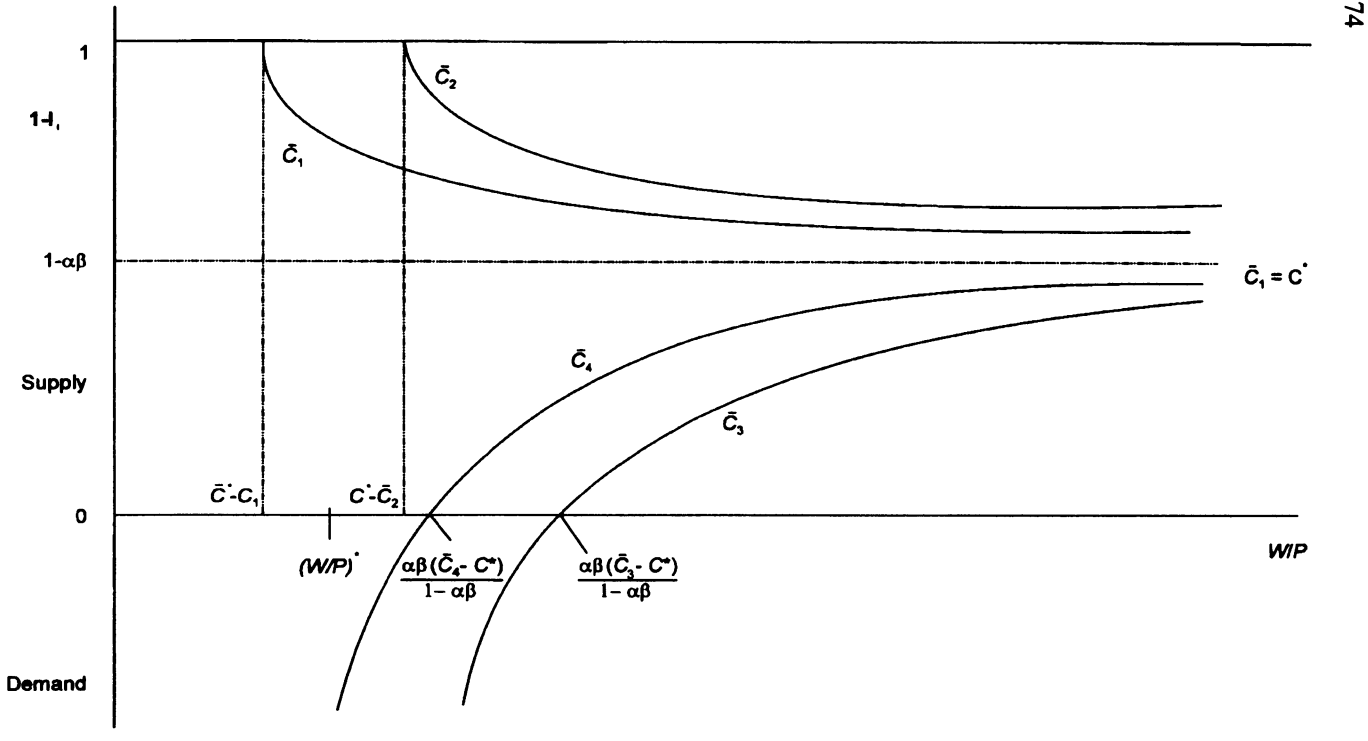

Figure 4.1 The individual supply of labour

$$c_i = c^* + (1-\alpha)F_i/p = (1-\alpha)\bar{c}_i + \alpha c^* + (1-\alpha)w/p \quad (4.4)$$

where $F_i = (\bar{c}_i - c^*)p + w$, which may be considered the full income of the agent.

Supply of labour to the market (or demand if $I_i > 1$) is given by:

$$1 - I_i = 1 - \alpha\beta\frac{F_i}{w} = (1-\alpha\beta) - \frac{\alpha\beta(\bar{c}_i - c^*)}{w/p}. \quad (4.5)$$

As might be expected, supply falls with an increase in endowment, though the agent will supply the food market before s/he becomes a demander in the labour market. The labour market plays a central role in our analysis of famine, so it is worthwhile to highlight several aspects of Equation (4.5). In Figure 4.1 we sketch the market schedules for individuals with different levels of endowment. First let us consider two poor labourers with endowments $c^* > \bar{c}_1 > \bar{c}_2$. Labour supply will fall for both as the real wage increases: essentially, the increase in full income is allocated to more production of corn in the next period, which will reduce labour supply, even though current consumption of corn will still rise. Since the poor need to purchase corn from the market, they will never become demanders of labour. In fact, as the real wage becomes infinitely large, the individual supply schedules of all peasants asymptotically approach $1 - \alpha\beta$, the supply level of an individual with $\bar{c}_i = c^*$.

Of particular importance is the point at which the supply schedule commences; that is, the lowest real wage $(w/p)_i^{\min}$, at which the peasant is physically capable of participating in the labour market $(I_i = 0)$:

$$(w/p)_i^{\min} = c^* - \bar{c}_i, \quad (4.6)$$

and thus Labourer 1 will be able to supply the market for some levels of the real wage at which Labourer 2 will be physically incapable of matching (at w/p^*, for example). Should the market wage rate be w/p^*, those individuals with $\bar{c}_1$ corn will be labouring while those with $\bar{c}_2$ will be facing disaster. The reservation wage *falls* with endowment, up to c^*.

Now let us consider the better-off, $\bar{c}_i > c^*$. The wage rate that leads to an individual moving between being a supplier and a demander from the market is given by $\frac{\alpha\beta}{1-\alpha\beta}(\bar{c}_i - c^*)$. Thus a richer agent will require a higher real wage to become a labourer (as demonstrated in Figure 4.1 for $\bar{c}_3 > \bar{c}_4$).

The remaining decision variable is the demand for land, which is straightforward since, in effect, it may be considered simply as a current expenditure to secure future endowment:

$$k_i = \frac{(1-\beta)\alpha F_i}{r} = \frac{(1-\beta)\alpha(\bar{c}_i - c^*)}{r/p} + (1-\beta)\alpha w/r \qquad (4.7)$$

Given that we restrict ourselves to the situation where $F_i > 0$, an increase in the rent level will unambiguously lead to a fall in the demand for land. The three demand equations, Equations (4.4), (4.5), and (4.7) are functions of two real prices, w/p and r/p, a point we shall be developing later.

In order to determine equilibrium prices we shall start with the labour market, where the demand for labour from farmers is met within the agricultural sector. As is evident from Figure 4.1, the wealthier will be demanding labour and the less-well-off supplying it. For clarity, we shall begin with the simple case where $\bar{c}_i > c^*$ for all $i = 1,..N$. Summing Equation (4.5) over all agents and setting the result to zero yields:

$$(w/p)_e = \frac{\alpha\beta}{1-\alpha\beta}(\bar{\bar{c}} - c^*), \qquad (4.8)$$

where $\bar{\bar{c}}$ is the mean endowment level in the economy. Inserting Equation (4.8) into (4.5) gives (with e indicating equilibrium throughout):

$$1 - I_i^e = \frac{\alpha\beta}{1-\alpha\beta}\frac{(\bar{c}_i - c^*)}{(\bar{\bar{c}} - c^*)}. \qquad (4.9)$$

Those with endowments above the mean level demand labour, while those with less supply it. Should endowments be allocated equally, there are no actors in the market and everyone works full-time on their domestic holding.

We assume that land is held by a class of landlords with the rent level demand determined. Repeating the above exercise with Equation (4.7) and inserting Equation (4.8) yields:

$$(r/p)_e = \frac{(1-\beta)\alpha}{1-\alpha\beta}\frac{(\bar{\bar{c}} - c^*)}{\bar{\bar{k}}}, \qquad (4.10)$$

where $\bar{\bar{k}}$ is the average quantity of land demanded.

Once the equilibrium real wage rate is determined, Equation (4.4) will generate the corn consumption of every agent and thus his market

supply or demand. Equations (4.9) and (4.10) determine the wage rate and rent level in terms of corn. The consumption of corn by every agent, and thus his market supply or demand, will be determined by Equation (4.4). The food market consists of the poor purchasing corn from the better-off.

THE IMPACT OF THE BLIGHT

There were two shocks administered to the Irish rural economy in 1846; the principal one was the blight, although in experiencing crop damage Ireland was not alone in Europe. Cereal crop damage was widespread, with the result that food prices internationally were bid up. From 54 cents per bushel in July 1846, the New York price of maize rose to 81 cents in January 1847 (Bidwell and Falconer, 1925, p. 503). What effect would a pure price rise have on the model?

Equations (4.8) and (4.10) give the equilibrium values of w/p and r/p respectively. These values are homogeneous of degree zero in prices, and thus any increase in the price of corn will lead to an equal increase in wages and rents. The equilibrium factor prices in terms of corn are invariant to changes in the price of corn.

However, given the role of the mean endowment level in the equilibrium wage rate and rental, it is obvious that the blight will have dramatic effects. The 1846 crop was drastically reduced to about a quarter of normal yield. The crop constituted about a fifth of the value of agricultural output in a normal year (Ó Gráda, 1984), and so the blow was exceptionally heavy. Moreover, its impact was not evenly distributed. For many labourers the potato was their main or only crop; thus the poor layers of the rural population suffered disproportionately severely.

Let us now consider the consequences of a loss of $1 - \delta$ of the corn crop because of disease (no attempt will be made to take account of the differential impact). The equilibrium we have characterised above will be disturbed, with the extent dependent upon δ. We begin with the labour market because its role is central; for clarity, we assume that the wage rate before the shock was c^*.

The Labour Market

The new mean level of endowments is $\delta \bar{\bar{c}}$ and if the wage rate remains at c^*, supply of labour to the market will increase and demand will fall. We

assume that the result of excess supply of labour is that the wage rate will fall. However, this will lead to a rate below c^* and thus one which will not ensure survival unless supplemented by endowment. If the wage rate falls below $(w/p)_i^{\min}$ for some i, we must take care that the summation of Equation (4.5) to generate Equation (4.8) does not violate Equation (4.6) for any agent i. Provided it is possible strictly to rank all agents by endowment, that is, $\bar{c}_1 > \bar{c}_2 > \ldots > \bar{c}_n$, then

$$(w/p)_e = \frac{\alpha\beta}{1-\alpha\beta}(\delta\bar{\bar{c}}_n - c^*), \tag{4.11}$$

where $\delta\bar{\bar{c}}_n$ is the mean endowment of the first n agents, and n is the highest integer, such that $\delta\bar{c}_n \geq c^* - \frac{\alpha\beta}{1-\alpha\beta}(\delta\bar{\bar{c}}_n - c^*)$. Since the $N-n$ agents with the lowest resources have dropped out, $\delta\bar{\bar{c}}_n \delta\bar{\bar{c}}$.

It is important to fully grasp the implications of Equation (4.11) for the economic explanation of famine. There is no need for the market clearing wage to guarantee subsistence even though it is rational for every active worker to accept the market rate. To return to Figure 4.1, we see that for $\bar{c}_i < c^*$ the reservation wage *falls* with endowment as the poor workers use earnings from the labour market to cover the shortfall in their subsistence consumption. Should the market equilibrium wage be w/p^*, the better-off labourer with $\bar{c}_i$ will be working, while the one with $\bar{c}_2$ will be destitute, since $\bar{c}_2 + (w/p)^* < c^*$.

We may summarise the effect of the loss of endowments upon the labour market as follows: the consequent reduction in the wage rate will lead to some of the poor being unable to supply labour to the market, since the new rate will by itself not afford subsistence and they will fall into the starvation set; the reduced wage will lead to a substitution effect in favour of future production, but for the poor this is dominated by the income effect, which leads them to supply more labour to the market.

The Land Market

The adjustment here follows directly from that in the labour market. By Equation (4.7), demand for land will fall as endowments are reduced and the real wage falls. This is reinforced by the destitute dropping out of economic activity. As a consequence, there will be excess supply of land services, and competitive pressures will bid down the rent level. Moreover, it can easily be demonstrated that the factor prices ratio w/r will *increase* with the endowment loss, in fact

$(w/r)_F = (N/n)(w/r)_e$. The intuition behind this is straightforward: the reduction in the wage rate will be achieved by agents dropping out of the labour market and becoming destitute (see Ó Gráda, 1974 for evidence). This means that the mean level of endowment of those that remain active will increase, thus putting a brake on the decline. There is no such brake in the land market, and in order to rent out the land that has become vacant, landlords will reduce the rent level proportionally more than the wage rate has declined – the average size of rented land increases. Thus, even though the wage rate has been reduced, the technique of production becomes relatively more land-intensive.

Although the loss of the potato crop can explain the fall in agricultural output, it is this conclusion of the model that can explain its radical restructuring towards cattle and sheep. In the period 1845–7 the potato acreage declined by 65 per cent, and the oat acreage by 18 per cent, while the number of cattle *increased* by 12 per cent.[2]

The crucial characteristic of the famine period is that the wage rate falls below subsistence. To be capable of supplying labour, an agent must supplement the wage by some of his/her endowment. Those with insufficient endowments fall into the starvation set. The endowment loss reduces the demand for land, but competitive pressure leads to the rent level falling by more than the wage rate, with the result that production becomes more land-intensive despite the presence of unemployment. The character of the food market is unaltered, although the quantities traded are obviously reduced.

IMPLICATIONS FOR RELIEF WORKS

The traditional policy to alleviate distress in pre-Famine Ireland was the provision of public works (a policy with many distinguished contemporary adherents – see Drèze and Sen, 1989). Given that large numbers in the rural economy were rendered destitute by the blight, it is clear that to fulfil the role of combating famine the wage rate on the public works would have to be at c^*. However, a wage lower than this would attract the participation of an agent whose endowments were such that domestic production was undertaken. Thus the crucial flaw in the relief scheme – accepting a job on the relief works – did not necessarily imply destitution. Moreover, if the works were attracting those who were not destitute, then the conclusion for the administrators was straightforward: the wage rate was too high.

The principal vehicle was the Labour Rate Act, under which employment grew from 30 000 in October 1846 to a peak of 710 000 in March, 1847. Only one person per family was originally to be employed, although this condition was subsequently relaxed as the crisis developed. Still, given a population of 8.2 million in 1841, the extent of the operation was vast.

The intention of the Act was that wages were to be set at a level below that prevailing in a locality. In the pre-Famine rural economy wages were often not paid in money but rather were entered notionally at an agreed rate in a complex deal including house, turbary, grazing and potato land. According to Liam Kennedy's analysis of the wage data of the Poor Inquiry (Great Britain, 1836, vol. 34, appendix D), the winter wage rate without food was 8.26d., with a standard deviation of 1.51d. The rise in food prices would have led to such a level becoming totally inadequate, and by October 1846 wages were being increased with task work introduced to deter applicants, although intimidation often rendered this inoperable.

In fact, the imposition of task work made the situation worse. Gangs composed of fitter men would refuse to have any weak, starving people included with them so they could exploit the task work system. Those most in need were disadvantaged – a recurrent criticism of relief by public works (Clay, 1986). The total failure of the wage policy was well expressed by one of its officials:

> instead of fitting the wages to the task, we were obliged to fix a rate of wages, such as would give even to starving people a sufficient sum to subsist upon; the whole conditions of every part of the machinery were reversed
>
> (Parliamentary Papers (1852), vol. 6, Q2176).

Average earnings on the relief works have been estimated from the British Parliamentary Papers (referred to below as 'Great Britain') and are shown as a graph in Figure 4.2. Two clear patterns emerge: first, earnings seem to have peaked in December 1846 and thereafter to have declined spasmodically, with the sharp fall in January 1847 associated with poor weather. This decline occurred alongside the continued expansion of the works, and can be interpreted as an administrative response designed to deter applicants. Second, the period of decline in earnings also witnessed increases in food prices, so that by April 1847 their real value may not have been much more than half that of November. Given that the latter was not generous, it

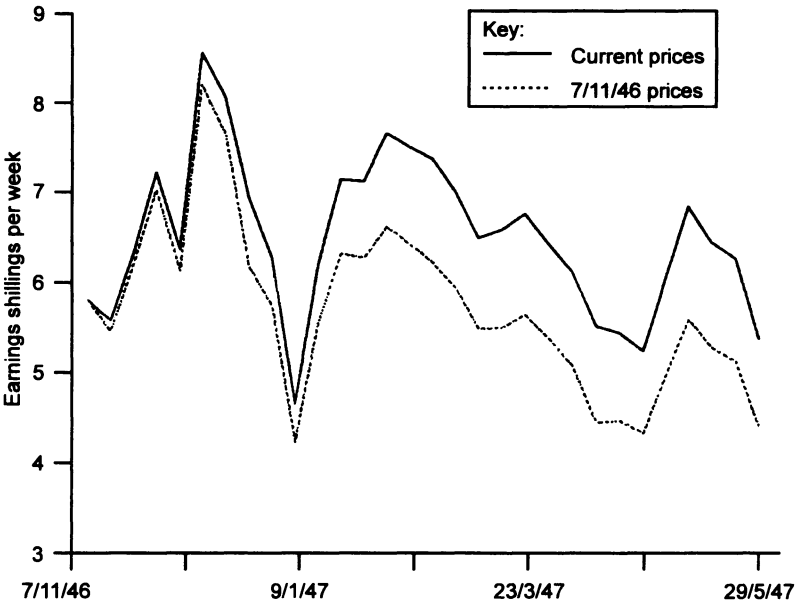

Figure 4.2 Average earnings on relief works, 1846–7

is hardly surprising that the relief works failed utterly in their objective.

Up to 24 April (numbers were reduced sharply thereafter) mean average earnings were 6.44 shillings, with a standard deviation of 0.82. Thus, the daily wage rate would have been 13d., which, though considerably in excess of the pre-Famine rate, was not disbursed uniformly. Three points need to be highlighted: first, the number employed includes the sick and infirm, as well as women and boys. The wage differentials that existed between these groups may be appreciated from a return from a Monaghan barony where, for the months of December and January, men's wages ranged from 8d. to 13.75d. per day, women's from 4.0d. to 7.75d. and boys' from 4.0d. to 7.75d. (Great Britain, (1847b), pp. 48–9).

Second, despite their being significantly higher than pre-Famine rates, the wages paid by the relief works were inadequate. As the District Engineer in Belturbet noted in February 1847, there had been 'a gradual falling off in the earnings of the workmen ... the quantity of food which they are able to procure is quite inadequate to enable them to work' (ibid., p. 151). The Board of Works' instructions on task

work stated that an ordinary labourer should earn 10–12d. a day, while a good labourer 'who exerted himself' could earn 16–18d. (ibid., p. 140). Since the poor who were most in need of relief were the most debilitated, the task work regime generated perverse results. The physically fit banded together in gangs to maximise their earnings, while the sick and starving perished. The dispersion of earnings on the works were almost as important as the mean.

CONCLUSIONS

This chapter has posed three questions concerning the Great Irish Famine. The simple general equilibrium model that has been developed can now suggest responses. Why did cattle and sheep numbers increase dramatically just as tillage was collapsing? The model predicts that the loss of endowments will increase the factor price ratio against labour. Production technique in pre-Famine Ireland was highly labour intensive but with considerable possibilities for factor substitution, which the livestock change illustrated. Why did so many small farmers attempt to be involved in the public works despite the wage rate being set so low that only the destitute would be tempted? At low levels of endowment the wage rate at which it was rational for a worker to participate in the labour market (and be physically capable of doing so) declined with assets, so if a destitute man could work it was in the interest of the better-off man to work also. Why did the public works fail? The attempt to use the wage as a screening device was flawed. The surge of applicants was interpreted as indicating generosity of the wage rate, with the result that the poorest could not survive on the earnings they were capable of making.

Notes

1. This chapter is based on a paper presented at the Annual Conference of the Development Studies Association, University College Dublin, 7–9 September 1995. The author is grateful to Siddiq Osmani and Parimal Bag for their comments upon an earlier draft. Any deficiencies are the author's sole responsibility. The paper was also presented at the Ninth Annual Conference of the Irish Economic Association and was pub-

lished in its proceedings in the *Economic and Social Review*, vol. 27, 1995.

2. The tillage figures are based on Ó Gráda (1989, table 3.3) and the official returns. The livestock figures take account of Bourke's (1965) observations on the 1841 Census. The increase in livestock numbers indicates the resilience of at least some sectors of the rural economy.

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5 Friedrich List and the Causes of Irish Hunger

Michael Yaffey

Friedrich List (1789–1846) is best known for his work on the economic development of nations under the influence of other nations, sometimes called 'catch-up development'. He argued for the creation of the German *Zollverein*, a customs union of German-speaking trading cities extended by treaties to Belgium and Holland. The *Zollverein* was the precursor of the German nation state and arguably of the European Union. List is widely regarded as the principal architect of the *Zollverein*. He was also a speculator, journalist, railway and coal-mine promoter, consul, and professor. His ideas were recognisably dominant in the economic thinking of the Vorparlement, the preliminary series of assemblies in which a constitutional reform reflecting the national consciousness of modern Germany was first mooted, in 1848, shortly after List's death. He was most influential, therefore, during what has been named the 'age of revolution', in which a rising nationalism was a major element. In Germany in the late 1990s, the List Society continues to enjoy a healthy academic life: 'List's contribution to understanding the problems of development is incredibly up to date' writes Professor Senghaas (1989, p. 63).

He was a tireless and scathing opponent of the celebrated Adam Smith, whose ideas on the division of labour and the benefits of free trade List considered to be 'cosmopolitan' – appropriate only to an ideal or future world in which the interests of separate nations were no longer paramount. List stressed the need for temporary protectionist customs tariffs in suitable countries at a certain stage in their development, to shelter their manufacturing industries against competition from other countries, and here List had in mind particularly England, where manufacturing and commerce had developed earlier and achieved a strong competitive position. The addition of manufacturing and commerce to the simple agrarian economy was an essential condition, List believed, for the arts and sciences to grow, for civic virtues to flourish, and for populations to experience the material and psychological benefits of civilisation.

Here List attacks Adam Smith and the neo-classical doctrine of market value:

> Increasing prosperity always results in progress in civilisation and in social institutions; and no spiritual and social forward step remains without effect upon material prosperity. It follows from this, that if we are to learn how entire nations achieve prosperity and affluence, we must not confine ourselves to an enquiry as to the way in which individuals produce tangible goods, distribute them amongst themselves and consume them. Such would be a methodology which might satisfy the individual merchant, manufacturer or farmer, but to the statesman and legislator it must appear as not adequate for his greater efficacy. For him it is not so much a matter of amassing valuable objects in the hands of individuals, but rather of assembling those forces and those institutions by which the welfare of the whole nation is produced and assured. It may be good for him to know in what manner labour, capital and land unite together in order to form valuable products in the hands of individuals. But since he realises that valuable products are available to whole nations more commonly in those cases where intelligence, religiosity and morality have come to rule over their members, where sciences and arts, techniques and discoveries in general are most advanced, where the individual nation has made these achievements of humanity in general its own, and where the civic, economic and political institutions are the most advanced, he draws the conclusion from all this that these are the forces by which every process of production in the whole nation is promoted. (List (1850) [1839], p. 101)

An important role for the independent state is to protect these things:

> Since he also realises that some entire nations have fallen into subjection and vassalage under other nations, and have thereby, despite the diligence and thrift of their individuals, lost their prosperity and their civilisation, so he is not satisfied with his concern to expand the productive powers; he looks for guarantees, which will give the nation an assurance of the continued possession of its existing productive forces and treasures, and of the continuing increase of these; he seeks for independence and power. Yes, these are even more important to him than wealth, because they guarantee for the nation not only those material goods which it already

> possesses, but also the possession of its civilisation, its rule of law, its freedom, and its civic and political institutions. (List (1850) [1839], p. 102)

This view is, of course, contrary to the mainstream economics of the present day, which in its international trade theory continues to deny the welfare benefits of sectorally-balanced national development, even though modern cost–benefit theory has been applied almost entirely to the benefits to a single nation and is quite Listian in its emphasis.

List was concerned with dismantling internal barriers to trade as well as erecting external barriers. In 1841, at about the time his major work (*The National System of Political Economy* – NS) (List, 1996 [1841]) first appeared, Prussia, on behalf of the *Zollverein*, signed a trade agreement with England. List objected to it on the ground that Prussia had for eight years debarred herself from giving additional tariff concessions to outlying Hanseatic cities, by which alone they might be induced to join the *Zollverein*. For this he was denounced as the 'German O'Connell', presumably a reference to his vision of nationhood as an artificial construct not necessarily defined by language or religion. However, List was an experienced publicist. His view were widely studied.

List's book was translated into French, Hungarian, and later English and other languages. Collected works appeared in 1850 and in 1931, in German. Much of List's work other than NS is not, however, available in English. In 1992 the present writer searched through List's works looking for remarks or ideas applicable to the countries regarded as less developed countries (LDCs) today, and translated the excerpts now offered to the reader in English (the texts cited above, and the comments by List's 1931 editor, W. Notz (see Appendix)).

Here we shall review, first, the influence of Ireland's national experience on List's thinking; second, the influence of List on Ireland; and last, we shall consider what options were open, in the Listian perspective, for Ireland to escape from its poverty and approaching famine at that time, and to find a route to balanced economic development. This discussion may have implications for LDCs today which do not meet List's preconditions for what he called 'normal national development', as Ireland did not in his lifetime.

THE IRISH EXPERIENCE IN LIST'S THOUGHT

List died in 1846, with the Irish famine at its height. He had never visited Ireland. He was, however, aware of the condition of Ireland in some detail; he appears to have become aware of the Irish experience during his years in the United States (1825–32, during the presidencies of Jefferson and Madison).

List cites first China, then Ireland as horrifying examples of countries that failed to defend their national interests against those of a stronger, relatively advanced economy – in both cases, England. The analysis of China and that of Ireland have some features in common.

> English merchants export masses of opium to Canton, where they exchange this merchandise for tea and silk. The trade is profitable for the traders of both nations. According to the theory of value (as it has been taught since Adam Smith) this traffic is useful to both nations, since it increases the national product of both. To the contrary, the Governor of Canton declares that the consumption of opium has an indescribably damaging effect on the morals, the intelligence, the domestic happiness and the public order of the Chinese. What use, he exclaims, is this cash profit which our Hong traders make to us? That merchandise, which we swap for our silk and our tea, serves only to bury our civilisation, and with it, our entire productive force (List (1850) [1839] p. 103).

In the Chinese case, List refers to the ill-effects of the British opium trade, and the powerlessness of the Chinese to defend their national interests in the face of Western sea-power. In the Irish case, he refers to the phenomenon of the inadequate smallholding. This matter of land tenure may seem quite unrelated to the opium trade phenomenon. But there is a parallel here. The argument is that because Ireland, like China, has insufficient military power to insist on prosecuting her national interests, she cannot develop non-agrarian sectors under tariff protection. This leaves Ireland with unimproved agriculture, or as List calls it elsewhere, 'crippled agriculture':

> By a crippled state of agriculture we mean that state of things in which, from want of a powerful and steadily developing manufacturing industry, the entire increase of population tends to throw itself on agriculture for employment, consumes all the surplus agricultural production of the country, and as soon as it has

> considerably increased either has to emigrate or share with the agriculturists already in existence the land immediately at hand, till the landed property of every family has become so small that it produces only the most elementary and necessary portion of that family's surplus which it might exchange with the manufacturers for the manufactured products which it requires. Under the normal development of the productive powers of the State, the greater part of the increase of population of an agricultural nation (as soon as it has attained a certain degree of culture) should transfer itself to the manufacturing industry, and the excess of the agricultural products should partly serve for supplying the manufacturing population with provisions and raw materials, and partly for procuring for the agriculturists the manufactured goods, machines, and utensils which they require for their own consumption, and for the increase of their own production. (List (1966) [1841], pp. 154–5)

While List in this passage describes a model of only two sectors, without the other activities (commerce, the professions, transportation) he mentions elsewhere, this is a very clear model of the causes of the succession of famines in Ireland. Taken together with the two previous citations, it clearly is intended to refer to countries in the Irish situation as List perceived it.

The description of Irish agriculture quoted above was published in 1842, a year after NS came out. If one were to read only the former, one might conclude that List's diagnosis was essentially one of inefficient land tenure, which, without its further explanation of political and military power, would be an arbitrary and unconvincing diagnosis. But if one admits that List's views on Ireland were formed during his visit to the USA a decade or so earlier, it seems reasonable to take his 1841 and 1842 writings together, and to discern in them a complete and cogent model.

In this model, List deals with rural poverty caused by a rising population on limited land, and argues that people in such a system cannot have the civic virtues by which public improvements are motivated in modern cities:

> Small-holder farming is useful only as an ancillary or appendage to commercial production, in horticulture or in vineyards, close to towns or to market centres, or for the support of the daily wage earner, for whom it serves both as a savings bank and as an opportunity to put his spare time, and that of his dependents, to

> good use. It is a benefaction to the working classes of the people but, with the limitations that it has, it is less than equal to freedom, prosperity and morality, and less useful than the Poor Law of the English. (List (1850) [1842], p. 169)

Smallholder farming, if taken beyond this ancillary status, leads to hunger:

> Where it is more extensive, or even prevalent, it emerges as the most important defect of the agrarian economy. It then leads to the general potato economy, that is to say, to that condition in which the majority of the farming populace spends its time growing potatoes and eating potatoes... in which it wraps itself in tatters of its own spinning and its own weaving; in which the human being carries out the duties of the donkey, the horse, and the draught ox, without enjoying the nutrition levels of these beasts of burden.
>
> Just look at Ireland, and say if we exaggerate.
>
> All efforts to free the rural economy from feudal burdens and from toe-hold circumstances, and to bring waste common land into cultivation and into yield, serve only to create and extend the potato economy. And how should urban professions thrive, when the whole annual surplus of a family working the land consists of a few cabbage heads, a basket of apples, and a sack of cereals, which they drag to you on their heads, not to take back urban products in exchange, no! – to pay you the interest on their loans, for which their miserable property is mortgaged to you. (List (1850) [1842], p. 169)

He goes on to castigate rural officialdom:

> No more comforting, truly, is the picture of political conditions in such agricultural circumstances. Small-scale handicraft workers and wretched small-holders have as a rule neither the education nor the independence of mind nor the station in the economy which are necessary for public service or for the assertion of civic rights. From this arises the great evil, that an all too numerous, overweening aristocracy of officials grows up alongside them, which seizes for itself all the business of the local councils and corporations, the higher functions of administration, and the making of laws, places

> the free citizens under tutelage, neglects the objectives of society for bombastic, dead formalities, and gradually moves the country toward that state of affairs which we observe in that nation where the tutelage of the people is most advanced and most consequential – the Chinese. The most tireless effort, the most conscientious discharge of their duties by the higher government officials, the most noble aspirations and endeavours of the head of state, will achieve in such circumstances almost as little as the dead letters of written constitutions and laws. As long as the body of the state is wrongly constructed from its foundations upward, even the most powerful medicines are no more than poisons to it. The representative state can be built soundly from the ground up only by having at its disposal a requisite number of fully empowered free citizens. (List (1850) [1842], p. 169)

List was aware of an exception to the general position in that the linen industry, located in Belfast, did receive tariff protection:

> If any nations whatever are specially adapted by the past experience and exertions, and through their natural qualifications, for the manufacture of linen, those are the Germans, the Belgians, the Dutch, and the inhabitants of the North of France for a thousand years past. The English, on the other hand, up to the middle of the past century, had notoriously made such small progress in that industry, that they imported a great proportion of the linen which they required, from abroad. It would never have been possible for them, without the duties by which they continuously protected this manufacturing industry, even to supply their own markets and colonies with linen of their own manufacture. And it is well known how Lords Castlereagh and Liverpool adduced proof in Parliament, that without protection it was impossible for the Irish linen manufactures to sustain competition with those of Germany. At present, however, we see how the English threaten to monopolise the linen manufacture of the whole of Europe, in consequence of their inventions... This has only occurred because, firstly, they had attained greater eminence in mechanical skill; secondly, that they were further advanced in machinery for spinning and weaving cotton, which is so similar to that for spinning and weaving linen; thirdly, that in consequence of their previous commercial policy, they had become possessed of more capital than the French; fourthly, that in consequence of that commercial policy their home market for linen

> goods was far more extensive than that of the French; and lastly, that their protective duties, combined with the circumstances above named, afforded to the mechanical talent of the nations greater stimulus and more means to devote itself to perfecting this branch of industry. (List (1966) [1841], pp. 386–7)[1]

This Listian analysis would lead us to suppose that the Belfast area was structurally distinct from the rest of Ireland, because of its linen manufacturing sector, and so would share with Lancashire the beneficial accumulation of skills, capital, and protective structures in a Listian association with the other sectors of the British economy, in a manner denied to the rest of Ireland.

Like Robert Malthus, Friedrich Engels and Amartya Sen, List is a serious contender in the efforts to diagnose the causes of Irish poverty, and might well have been considered in the review of various such diagnoses by Mokyr (1983) and Ó Gráda (1989).

This claim for the validity and importance of the Listian analysis does not imply that all the credit for List's ideas should be given to List alone. A number of critics have passed the judgement that List merely absorbed what he called 'my system' from ideas that were current in America, contributing little himself that was precise or distinctive. A detailed examination of this charge is given by William Notz (1931; pp. 46–61), who, on behalf of the List Society, edited that volume of List's works that deals with his American period. A translation of relevant passages is given in the Appendix.[2]

List bought a residential property in Reading, Pennsylvania, a small town near the state capital, Harrisburg. Here, the predominant spoken language was a German dialect, Pennsylvania-Dutch. List settled into the German-speaking community and became a journalist, at first with the local weekly newspaper, *Readinger Adler* (*Reading Eagle*). He contributed a column on economic affairs, with simple notes on news from Europe, such as this from 1826:[3]

> In Ireland, plague and famine are rising to a fearful level. The Lord Lieutenant and the highest ranking inhabitants of Dublin have caused marquees to be erected outside the town, so as to escape from the theatre of death. (Notz (1931), p. 241)

and

> In Ireland, plague has allied itself to hunger (ibid., p. 242).

Despite this work, List travelled widely in the USA and engaged himself in activities outside as well as inside the German-speaking community. His introduction to American society was greatly assisted by a triumphal tour in the company of General Lafayette, the French marquis, friend of George Washington and popular hero, who had fought in the USA against the British during the War of Independence.

Among the ideas then current on economics and particularly trade theory, those of Alexander Hamilton (1755–1804) were very influential and have been regarded by some writers (see Appendix) as most influential (although indirectly) upon List himself. Hamilton was an aide to George Washington, and founded the Federalist Party. Eminent among the mediators who developed his ideas and transmitted them to List was the journalist and publisher Mathew Carey.

Carey (1760–1839) was born in Dublin, and became an apprentice bookseller at the age of fifteen. He was imprisoned by the British for political resistance and emigrated to Philadelphia. In 1785, with a donation of $400 from Lafayette, he set up Carey's *Pennsylvania Evening Herald.* Carey became an active political journalist. His interest in commercial policy had received a focus when, because of British refusal to recognise American maritime rights, disruption of American trade and boarding of American vessels, renewed war broke out between the USA and Britain. Henry Clay, congressional Speaker, took a leading hawkish stance in the US declaration of war against Britain in 1812. The so-called War of 1812 (in fact 1812–14) ended only eleven years before List's arrival in Pennsylvania. During this war, the supply of British manufactures to the American market was much diminished, and an impetus was given to domestic manufactures and to inland commerce (Furnas, (1969), p. 275).

Clay went on to advocate the so-called American System, essentially a profitable dynamic relationship between agrarian and manufacturing states, and between slave-owning and emancipated states, to be linked by new forms of transportation, without internal customs duties, but protected against foreign (especially British) manufactures by external duties. As the American System may be seen as a precursor of the *Zollverein*, and thus of the European Union, so it may be significant that the name is reminiscent of the Continental System, which refers to the still earlier system of implanting non-agrarian sectors adopted by Napoleon I in the several countries then under his control.[4]

Carey was active in supporting Clay's ideas. He was certainly known to List. At a dinner in Philadelphia in 1827 for the Pennsylvania Society for the Encouragement of Manufactures and the Mechanic Arts. List gave his first major speech, justifying and commending the American System. Carey, as vice-president, followed with a toast to Henry Clay, and was himself toasted as: 'Mathew Carey, the faithful and able advocate of the American System, – Posterity alone can award the merit due to the public spirit he has displayed in support of the best interests of our country'. This was reported by Notz (1931, pp. 410–12) with the comment:

> Throughout List's writings, from the *Reading Eagle* to the *National System*, there are turns of phrase, images, historical examples, quotations from writers in economics, etc. which one finds time and time again in Carey first.

Also significant among the many active immigrants from Ireland in American political journalism was John Daly Burk. According to Martin Burke (Dickson (1993), p. 298), Burk's contribution to the Irish-American revolutionary literature, the *History of the Late War in Ireland* (1799), was 'the most emphatic in its identification of the Irish, French and American causes'. It is interesting that this too was published in Pennsylvania. Burk in America championed the cause of 'republicanism', embracing the politics of Thomas Jefferson and the Jacobins. List avoided party politics in America, and was certainly no Jacobin, but must at least have been made aware of the Irish connection, and the specific content of Irish nationalism, within the ferment of American nationalism.

The influence of Ireland upon List operated through the persons of Carey and Burk, in Carey's case with specific reference to trade theory which was List's principal interest. However, the Irish experience shared with the American experience some common features that, in a more diffuse and pervasive way injected Irish ideas into the entire discourse of business and politics during List's time in America. Ireland was, as the USA had been, under colonial status. In both cases the colonial power was Britain. Ireland had, in the days of Wolfe Tone, solicited and received French military assistance, which, it has been argued, came close to success in 1796 (Graham (1993), p. 246); the American War of Independence was assisted by the French volunteer Lafayette, who was given a division by Washington, and succeeded when Lord Cornwallis was defeated by a French admiral in

Virginia, leading to the Treaty of Paris in 1783. According to William Cobbett, more than half the Pennsylvania troops who fought against the British, under Washington, were Irish (Knight (1984), p. 194). In the War of 1812 a unit of New York City militia known as the Irish Greens was sent against the British troops in Canada, at the Niagara frontier (Furnas (1969), p. 385). In short, List could not imbibe American republicanism without imbibing Irish nationalism as a part of it.

LIST'S IMPACT ON IRISH THOUGHT

Whether List's NS was read and understood in Ireland soon after it was published in 1841 is doubtful. List was certainly not highly regarded in British circles, and even to this day is not given the attention in development studies that, arguably, he deserves.[5]

Similarly, List's encouragement to the nationalists of Hungary, a country held up as a model for Ireland, was not acknowledged in Ireland itself. List visited Hungary after it had broken from Austrian domination, and Lajos Kossuth referred to him as 'the man who had best instructed the nations as to their true national economic interests', according to J.S. Nicholson's *Memoir* of List in the English edition of the *National System*. Sydney Smith's[6] opinion, 'It is impossible to think of the affairs of Ireland without being forcibly struck with the parallel of Hungary' was printed as a slogan on the front of Arthur Griffith's tract, 'The Resurrection of Hungary: A Parallel for Ireland' (1904).

To the extent that List had influence in Ireland during his lifetime, it would very probably be as an anonymous contributor to the economic theory of national development in the USA or in Hungary. The multiple authorship of this intellectual effort and, the lack of academic structures in Ireland at that time to pursue this paradigm may explain the obscurity of List's NS in Ireland, especially before its translation into English in 1885.

Thus, Thomas Davis (1814–45), a contemporary of List and mentor of Arthur Griffith, espoused Listian ideas without reference to List himself. Davis was co-founder in 1842, of *The Nation*, a political weekly, which argued for national revival in all necessary forms (Cronin (1980), pp. 67–8). Ireland, Davis wrote, must become pluralist, recognised as a nation internally and externally, with a navy, and the independence to guard its own laws. This is exactly what the NS recommended. List had argued that a country without a strong navy

could not insist on the right to promote its own interests, especially in defending its independent culture; the example of Chinese capitulations has already been mentioned in this regard.

During the half-century after 1841, List's work on the *Zollverein*, the customs union's success and on Germany under Bismarck, as well as the success of the American manufacturing sector, gave credence to List's beliefs and made his individual contribution much more visible. At that point, List's doctrine on tariffs was taken up explicitly in Ireland, notably by the Irish nationalist, Arthur Griffith, following Davis. By this route, Listian ideas, especially tariff protection and the nation-organising state, were injected into the Sinn Fein movement and its immediate precursor, Cumann na nGaedheal. MacMillan says of Griffith:

> Griffith's view on economics were strongly influenced by Friedrich List and German industrial development in the nineteenth century ... His argument for separation was based on economics as well as national identity. It was in Britain's interests to keep Ireland poor and agrarian. Irish economic modernisation, particularly the industrial development which was necessary if Ireland was to become a great nation, was not possible as long as economic policy was made in Great Britain. Griffith rejected British models of economic development associated with the Manchester School and Adam Smith. Borrowing from the Young Irelander, John Mitchel, as well as from List, Griffith argues for a system of high tariffs to protect Irish markets and strong state protection of native industries. (MacMillan (1993), p. 131)

List did not argue for high tariffs, exactly, but this is basically Listian. Nor did List particularly favour autarchy, as Henry supposed in his discussion of Sinn Fein ideas:

> Cumann na nGaedheal, as it was initially called, acted as a broad front forwarding cultural and economic nationalism, as well as feminism and pacifism. Griffith was influenced not only by his interpretation of how Hungary had won dual-nationality status, but also by the ideas of economic autarky pioneered by List. In October 1900 the declared aims of Cumann na nGaedheal were to advance the cause of Ireland's national independence by (1) cultivating a fraternal spirit among Irishmen; (2) diffusing knowledge of Ireland's resources and supporting Irish industries; (3) the study

> and teaching of Irish history, literature, language, music and art; (4) the assiduous cultivation and encouragement of Irish games, pastimes and characteristics; (5) the discountenancing of anything tending towards the anglicization of Ireland; (6) the physical and intellectual training of the young; (7) the development of an Irish foreign policy; (8) extending to each other friendly advice and aid, socially and politically; (9) the nationalization of public boards.
>
> (Henry (1920), p. 64, quoted also in Foster (1988), p. 457)

Griffith acknowledged List by name: 'I am in economics largely a follower of the man who thwarted England's dream of the commercial conquest of the world... Frederick List, the real founder of the German *Zollverein*'.[7] However, Cronin does not regard List's contribution as essential:

> Economic self-sufficiency was part of nationalist ideology before Sinn Féin advanced it as their number one goal in 1905. Parnell had urged protective tariffs, and Marx... considered it the inevitable result of self-government. Arthur Griffith, who took his economies from Friedrich List, could have found the same concept in Alexander Hamilton. All developing countries hope to bolster industry by bounties and tariffs. (Cronin (1980), p. 30)

'Ireland must be self-reliant and self-sufficient, Sinn Féin proclaimed. It must build new industries and guard them with tariff walls... His [Griffith's] vision was of a middle class Ireland with its own industry, culture and political way of life' says Cronin (ibid., pp. 118–19). This is a fair summary of List's position, but so brief a summary that inevitably it cannot distinguish List from Hamilton, Jefferson or Clay. Neither Cronin, Henry, nor MacMillan go into List's views in any depth.

Cronin goes on to cite a criticism by James Connolly, who, though friendly with Griffith, attacked him in the *Irish Nation* (1909) 'for admiring List, who measured prosperity "by the volume of wealth produced in a country, instead of by the distribution of that wealth amongst the inhabitants"' Cronin (1980)., (p. 111). Connolly's criticism contains both valid and invalid elements. In NS, List repeatedly denies that prosperity is to be measured by production, but rather by the productive powers – a combination of material and non-material forces; so Connolly cannot have read NS. It is true that List was not sensitive to questions of income distribution; his untroubled views on

slavery and on the treatment of native Americans (reprinted in Notz, (1931), pp. 281–2) demonstrate that.

After his sojourn in the USA one could describe him as an upholder of representative government acting for empowered citizens rather than democracy. According to NS, List believed that such empowered citizens could be found in (a) a prosperous trading class; (b) entrepreneurs and managers of 'decent' businesses; (c) rentiers; (d) public functionaries, in so far as they are free of dictatorial arbitrariness, and are well educated; (e) the creative intelligentsia; and (f) wealthy landowners. Such people, List believed, would enjoy the ability to think independently, and the means to protect their political rights. The working classes do not figure in this schedule; 'representative state' (in a large population) does not mean 'democratic state', though it does imply a concept of freedom. This is very much drawn from Hamilton, Jefferson, and other American activists. This problem had been addressed by Wolfe Tone, who suggested raising the franchise threshold for tenant farmers to disenfranchise 'that wretched tribe of forty-shilling freeholders, whom we see driven to the octennial market, by their landlords' (Cronin and Roche (1973), pp. 101–24, quoted also in Cronin (1980), p. 247). Tone too was close to the debates of the American Revolution. He briefly visited America around 1795, the year of Alexander Hamilton's resignation from the Treasury.

OPTIONS FOR A 'SMALL COUNTRY' IN LIST'S PERSPECTIVE

Cronin makes an important criticism of his own:

> Griffith latched on to List without realizing, apparently, that the German economist did not think his protectionist theories applied in a small country. (Cronin (1980), p. 118)

The population of Ireland when NS came out in 1841 was 8.2 million (Litton (1994), p. 8), but after the Great Famine it was only 4.4 million (1871). These census figures have been revised by Goldstrom and Clarkson (1981), Mokyr (1983) and others, but not so as to affect our judgement that Ireland was a small country in Cronin's sense. The Republic of Ireland in the late 1990s is even fewer (3.5 million), and even with the Northern Ireland population added does not exceed the 1841 figure. It is comparable with Norway (4 million) and Singapore

(3 million). Let us examine what prospects there are for economic development in a small country, according to List, and whether Cronin is right here.

List expressed the hope that NS would be of use to his fatherland. However, it bore the motto, in French, 'Et la patrie et l'humanité'. Recognising both giants and dwarfs among nations, and great differences besides those of size, he wrote: 'It is the task of national economy to accomplish the economical development of the nation, and to prepare it for admission into the universal society of the future' (List (1966) [1841], p. 175). This does not exclude small nations.

List then describes a nation in what he calls a normal state. Besides a harmonious balance of economic sectors,

> Its constitution, laws and institutions must afford to those who belong to it a high degree of security and prosperity; in a word, must have the well-being of citizens as their object. It must possess sufficient power on land and at sea to defend its independence and to protect its foreign commerce... A large population, and an extensive territory endowed with manifold national resources, are essential requirements of the normal nationality... A nation restricted in the number of its population and in territory, especially if it has a separate language, can only possess a crippled literature, crippled institutions for promoting art and science. A small State can never bring to complete perfection within its territory the various branches of production. In it all protection becomes mere private monopoly. Only through alliances with more powerful nations, by partly sacrificing the advantages of nationality, and by excessive energy, can it maintain with difficulty its independence... Territorial deficiencies of the nation can be remedied either by means of *hereditary succession*, as in the case of England and Scotland; or by *purchase*, as in the case of Florida and Louisiana; or by *conquests*, as in the case of Great Britain and Ireland.[8] (List 1966 [1841], pp. 175–6, emphasis added)

Only if none of these solutions could be applied did List prescribe that a country should give up hope of pursuing its NS and instead follow the principles of free trade and hope for the best in the world market.

It is not correct, therefore, that the Listian system applied only to large populations, nor that, in List's view, a small people such as the Irish did not fulfil his conditions for nationhood. List believed that his concept of harmonious, protected development was valid and import-

ant even in such a case. Rather, the problem was that such a nation was not 'normal'; the people of Ireland lacked the power to pursue their national interests; they lacked a national representative government; even if they had had one, they were too few to withstand the military pressure from England that would have arisen from commercial rivalry; and therefore special or fortuitous circumstances alone could allow the Irish interests to be pursued. Three such circumstances are mentioned, italicised in the quotation above. Since Ireland could not purchase or conquer England, List's analysis seems to lead to the third solution, a merger with England under a common monarch, as had happened with Scotland and Wales.

Ridiculous as this may seem today, Griffith followed this logic.[9] According to G. M. MacMillan:

> Like the constitutional nationalists, he did not advocate complete separation from Great Britain. What Sinn Féin did aspire to was the restoration of the pre-union Irish parliament and a personal union of the crowns. This policy of a dual monarchy, in which the king was bound to follow the advice of an Irish executive responsible to an Irish legislature, was close to the agreement reached in 1921. (MacMillan (1993), p. 126)

But for List, these three possibilities are not exhaustive:

> In modern times a fourth means has been adopted ... much more in accordance with justice and with the prosperity of nations than conquest, and which is not so dependent on accidents as hereditary succession, namely, the union of the interests of various states by means of free conventions. (List (1966) [1841], p. 176)

List mentions the *Zollverein*, by which Denmark and Holland (small states that he regarded as being essentially Germanic) could freely join Germany; Belgium, which could only hope for a confederation with a larger neighbour (one thinks of Benelux); and even the United States and Canada, which though not small would in List's view feel themselves more and more drawn together in some form of customs or economic union (one thinks of NAFTA).[10]

This was not possible at the time, since Ireland, not being free, could not enter into a free convention. There could, however, be the possibility of Ireland taking this course after becoming independent as

the outcome of a violent struggle, in the military tradition of Wolfe Tone, Padraic Pearse and Tom Clarke. Despite the stronger military might of England, there could be times when Ireland was assisted, for example, by France or the USA, or when England was distracted, for example, in a war with some other country. Wolfe Tone (1763–98) had perceived this possibility in his journal, written around 1791:

> Nothing to be done until the religious sects here are united and England engaged in a foreign war. If Ireland were free, and well governed, being that she is unencumbered with debt, she would in arts, commerce and manufacture spring up like an air balloon, and leave England behind her at an immense distance
>
> (Tone (1826) vol. 1, pp. 79–80).

It was indeed this possibility that materialised and enabled the independence of Ireland when Britain was involved in two extremely costly wars with Germany in the twentieth century. Had this happened in List's day, Ireland would have been free but still small, and a 'free convention' on List's fourth principle might well have followed.

Another half century was to pass before successful exemplars of small nations, undefeated by larger competitors with stronger military and diplomatic power, emerged in sufficient numbers to show that the fourth route was really open: Norway, Denmark, Finland, Iceland, Singapore and Mauritius.

Yet another quarter century elapsed before the Irish separation reached the stage of monetary separation: the currency of the Irish Republic was de-linked from sterling on joining the European Monetary System in 1979. The possibility of a federal Europe is now spoken of for 1999.[11] Even in its future course, Ireland may be said to be following a Listian path.

It is remarkable how well the course of Irish political economy lends itself to analysis within a Listian framework. This is to be explained partly by the reciprocal nature of the link, with the Irish influence on List through Carey and others, and List's influence on Ireland through Griffith and others; and partly by the conscious application of List's ideas, through the early Sinn Fein. However, as has been noted, List, Carey and Griffith were none of them solitary sages, but participants in active discussion circles. We must not ascribe the Listian framework entirely to List himself.

Appendix: American Influence on List

In these newly-translated passages, Notz (one of the editors of the 1931 edition) discusses various influences on List (1931: pp. 50–5)

With regard to those authors, or writings, which List first met in America, there is a rich vein of factual information in his writings and letters as we now know. List mentions or cites in his 'Outlines', his first important American work, rather generally 'different addresses of the Philadelphia Society for the Promotion of National Industry'; 'the different speeches delivered in Congress on that subject'; and 'Niles' Register, etc. etc'. The above-mentioned publications of the Philadelphia Society almost all came from the pen of Mathew Carey. As to the congressional speeches on tariff matters, List will have been thinking especially of those by Henry Clay, Daniel Webster, Henry Baldwin, and others. In 'Niles' Weekly Register', which he knew already from Europe, he found detailed reports on various events occurring at the time in the field of trade policy. List also names in his 'Outlines', together with Adam Smith, J.-B. Say, Chaptal, St. Crique and Soden, whom he already knew, P. Colquhoun, Thomas Cooper, Hezekiah Niles, Hamilton and Thomas Jefferson. In the 'Philadelphia Speech' he also mentions Dupin and Richard Rush. In 'Letters to Governor Giles' he names Madison, Washington, the Boston Report, Chaptal, Smith and Say; in the 'Harrisburg Address' the Boston Report, Chaptal, Cooper, Colquhoun, the London Quarterly Review, Say, Smith and MacCulloch; in his 'Observations' the Quarterly Review, Quesnay, the Boston Report, William Spence, Thomas Jefferson, Alexander Hamilton, William Jacob; in 'Remarks on Mr Cambreleng's Report' Davenant; in a letter to President Jackson Colbert, Turgot, de Witt, Stuart, Malthus, and MacCulloch (p. 50).

Hamilton's Influence

Whatever influence Alexander Hamilton may have had on List has been variously treated in the literature. K. Th. Eheberg would like to describe Hamilton as a precursor of List, and considers it 'self-evident, that List, if he knew Hamilton's reports, saw in them a confirmation that his own views were correct, but he had no cause to borrow Hamilton's ideas, as he had already come to America with similar ideas himself'. Eheberg also points out that Hamilton considered the [Adam] Smith system of free trade could be put into practice only if

it were implemented by all states simultaneously, that Hamilton attributes a higher productivity to factories than to agriculture, seeks to demonstrate the feasibility of implanting American industry, and therefore calls for this to be maintained and strengthened by appropriate protective tariffs.

J. K. Ingram's opinion is that 'there are some reasons to believe that List was influenced by Hamilton's work'. M. E. Hirst points to certain similarities of thinking between Hamilton's Report and List's Outlines, accepts Eheberg's judgement, and formulates their joint opinion with: 'It is difficult to avoid the conclusion that Hamilton, Raymond and Carey had strong positive, and Cooper a strong negative influence upon List's later work'. S. Sherwood calls List 'the successor of Hamilton and Raymond'. Ugo Rabbeno, who knew List's Outlines but not his other American writings, treated the Hamilton–List question with most depth. Rabbeno shows that Hamilton himself recognised free trade as theoretically justified and as a worthy final goal, and maintained the advantages of an agricultural-manufacturing economy over a simple agrarian economy; that he saw that a temporary burden of duties and bounties would be more than offset by increased production and increase in prosperity; Hamilton already emphasised the greater security of internal rather than external trade, and therefore indicated that the presence of manufactures should provide agriculture with a domestic market, and so recommended nursery tariffs to protect 'infant industries'.

But when Rabbeno assumes that Hamilton supplied List with most of his arguments, he overlooks the fact that Hamilton's ideas had long been in the public domain in America and that one came up against them continuously in congressional tariff debates as well as in a flood of books, pamphlets and newspaper articles. It should also be noted that List had earlier had the opportunity of encountering these ideas in Europe. On the other hand we can see from List's American writings which we now have available that he did know Hamilton's Report on Manufactures, mentioned it with praise, and quotes from it several times. It may be assumed that List knew the editions of Hamilton's Report which the Pennsylvania Society brought out in 1824 and 1827, printed by Mathew Carey and with an introduction by Carey... It is also worthy of consideration that 'productive powers', the term used by List, is found verbatim in Hamilton's Report; one would have expected rather to find List using 'productive forces' as a direct translation of the German or French expressions. (pp. 54–5)

Going back to Eheberg we find a passing mention that Raymond, an American, had expressed similar ideas to List's... Daniel Raymond (1786–1849) was born in the state of Connecticut, but from 1814 worked in Baltimore as a lawyer, writing his 'Thoughts on Political Economy' in his spare time... Mathew Carey was so much inspired by this [work] that he undertook to contribute $500 per year towards the cost of a Chair in Political Economy for Raymond at the University of Maryland in Baltimore. (p. 55)

Between List and Carey many points of contact can be seen. Both chose to go to America after persecution in their own country, in both cases with a helping hand from Lafayette. Both were self-made men as scientists and practitioners... Throughout List's writings, from the *Reading Eagle* to the *National System*, there are turns of phrase, images, historical examples, quotations from writers in economics, etc. which one finds time and time again in Carey first... Carey's intellectual activity... is reflected in List's American writings constantly, but with the difference that List had more fundamental knowledge at his disposal and went deeper than Carey, and considered everything from a much wider historical perspective than did the agitator Carey, who was inclined to a superficial treatment of many themes [an effort carried forward by his son Henry Charles Carey, 1793–1879, who was also probably acquainted with List]. (pp. 412, 415)

Notes

1. The Linen Board was abolished in 1828.
2. Some further light is cast on this by the edited works of List's pre-American period, researched for the List Society by Artur Sommer.
3. The year 1826 has not been noted as an especially severe one for famine (Crawford (1989), p. 20), but the incidence of plague, affecting even the most distinguished citizens in the capital, was newsworthy. Famine itself was undoubtedly reported in almost every year of List's stay in America.
4. Commencing in 1806. On this, see Henderson (1967), pp. 82–3.
5. List was criticised in his lifetime as an impertinent academic who published new ideas without proper authorisation; as a dangerous German nationalist and anti-British agitator; even as a romantic who sought to invent something new and special in German capitalism. He is not well known among English-speaking economists. *Chambers' Biographical Dictionary* describes him as a disciple of Adam Smith, which is the opposite of the truth. Routh's *Origin of Economic Ideas* has no mention of List, but forty-nine mentions of Smith. Marx, Schumpeter, Alexander Gray, and recently Eric Hobsbawm, have dismissed List as one who

added little to the existing ideas of the American (or, for Marx, the French) revolutionists. On this point, see the Appendix; if List is regarded merely as one who preferred protective customs tariffs to free trade, he cannot readily be distinguished from other writers. But he can be distinguished as a writer on political economy, especially of European countries, with a vast historical sweep, precision of expression, and much detailed commercial knowledge.

6. Sydney Smith (1771–1845), English essayist and writer on Catholic emancipation.
7. Speech at Sinn Fein convention, November 1905, reported in United Irishman, reprinted in Kohn (1955), p. 149: 'His name is a famous one in the outside world, his works are the text books of economic science in other countries – in Ireland his name is unknown and his works unheard of.' Griffith went on to give a succinct but accurate summary of List's system. Exactly when Griffith studied List, in the twenty years between 1885 (when the translation is known to have been available in Ireland: Davis (1974), p. 128) and the convention speech, is unknown, but there are indications that he discussed List in a small political circle after his South African visit (1898), perhaps at the time he took up the Hungary–Ireland analogy (1902–5).
8. The reference to Ireland concerns action of conquest by Britain to extend the British economy, and does not infer that this is a solution for the Irish economy.
9. Kossuth's Hungary had also adopted a dual-monarchy solution. For a discussion of how republicanism can be reconciled with monarchy, see Bartlett (1993), pp. 4–6.
10. The lack of satisfactory economic analysis devoted to small countries has been noted by Hein (in Kaminarides *et al.*, (1989), p. 4). For a survey of such analysis between 1973 and 1990, see Simon (1992). For a detailed empirical survey of five small open economies, see the World Bank study by Findlay and Wellisz (1993). A century and a half after List's death, none of these contains any Listian analysis or reference to it.

    In modern terms the openness of an economy is one of its defining characteristics. A small economy is regarded as a price-taker on the world market in so far as it opens itself to the world market. Small economies can be ranked by their openness, but openness is not particularly associated with size.

    Modern economics thus treats openness as exogenous. The Listian concept that a developing country does not fulfil his 'normal' preconditions for nationhood, nor benefit from the four mentioned special and fortuitous circumstances, and is driven into reluctant openness by military and diplomatic pressure from more advanced nations, makes openness endogenous. The latter may seem to correspond to daily experience, but analytically this concept is ruled out by the modern device of separating the sciences of economics, politics and international relations.

    The recent Uruguay Round, in which countries signed up individually to the World Trade Organisation (WTO) provides an up-do-date example of List's relevance for small economies. There is no evidence that

they had sufficient bargaining power to negotiate on substance, like the USA, EC, and Japan. In many cases they do not appear to have produced position papers, identifying their favoured national policy. Some possible reasons for this may be found in Listian analysis.

11. Oddly enough it was Marx, not List, who foresaw this: 'Previously I thought Ireland's separation from England impossible. Now I think it is inevitable, though after separation there may come federation' (Marx/Engels (1971) [1867]; p. 142).

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6 The Historical Roots of Famine Relief Paradigms[1]

David Hall-Matthews

The Indian Famine Codes, drafted in 1880, were the first written statements of famine policy in the modern era. They had their foundations in European philosophies regarding both the state's role in the market and its treatment of the poor, but they were important, too, as the first formal indications of how the British were to deal with famine in the colonial context. In a sense they therefore represented the first expressions of policy ideas from a 'developed' nation on famine in a 'developing' one. These Codes have probably never been matched in their exceptional detail, and appear to have had an enduring influence. I do not wish to dwell here on the vexed question of how successful they were in application, but influential analysts such as Amartya Sen, Jean Drèze and Alex de Waal have praised – and borrowed from – their approach (Sen (1981); Drèze, (1990); de Waal (1989)). This chapter is focused less on the practical formulations of the Indian Famine Codes than on two central arguments within them that defined their basic approach, and continue to be asserted by students and practitioners of famine relief today. The first was that relief should not be so generous as to encourage dependency among its recipients. Second, the Codes were designed to provide relief without weakening the economy by intervening or participating in foodgrain markets. Heavy concentration upon these issues when famine policy was being debated in India often seems to have led to the dogmatic certainty that minimal relief intervention was the best strategy, which was not always supported by empirical evidence available at the time.

By examining a case at a critical time in the historical development of famine policy, I aim to demonstrate weaknesses in these dominant assumptions. Above all, they are overly simplistic interpretations of economic processes and events and also of people's responses to crisis. The fear of making people dependent, in particular, also stems rather more from moral or racial interpretations of people's character than from real economic analysis. This is very important in attempting to apply Sen's Entitlements Theory to relief (Sen, 1981). Rather than

encouraging laziness, early and generous relief aid can serve precisely to enable people to protect their long-term entitlements and therefore incline them to maintain their livelihoods with as little help as possible. On the other hand, relief which comes very late or is targeted only at the very poor cannot preserve people's entitlements, for they have none left to preserve. Such people are therefore – usually against their own will and better judgement – dependent upon others even before relief arrives. The choice is only between helping them to survive or letting them die.

There have too rarely been cases of early, generous and interventionist famine relief, however, to be empirically certain about the general effectiveness of such an approach. It is not easy in any case to assess the consequences of different famine relief policies in a general way, because there can rarely be any kind of control sample. The specific context is always a key factor and, more importantly, famine hardly seems the time to test different theories. The colonial Government of India, though, has often been charged with using India as an economic laboratory and there may, ironically, have been a potential advantage to their experimentation in this case because at least one such generous famine campaign was attempted. The contrast between the effectiveness of this strategy and of a more stringent approach was, and can be, clearly observed – although the potential granted by this opportunity went unfulfilled at the time, as we shall see.

The decade preceding the emergence of the Indian Famine Codes saw a great deal of fluctuation in famine relief tactics, including a campaign in Bihar in 1874 which was not only generous but particularly successful. To some extent this fluctuation was because no written policy existed and each administrator did as he saw fit. However, this was also a period in which central government started to take a very active interest in famine policy, and to impose a firm, controlling hand over the provinces. Prevailing opinion at this level shifted dramatically, too, and in 1877 the fascinating situation arose whereby the manager of the Bihar campaign – Sir Richard Temple – was called upon by the Government of India to advise the Government of Madras, and then to direct the Government of Bombay, as Governor, during an extensive and devastating famine in which relief was stringently restricted and a policy of *laissez-faire* was rigidly applied to the grain trade.

This affords an opportunity to examine the historical emergence of a particular famine relief paradigm in the colonial context in some

depth. Differing strategies and priorities were widely debated during the 1870s, and it was clear enough that the Bihar campaign, in which excess mortality was completely prevented, was more successful than the South Indian one, during which the Commission of Enquiry into the Famine reported that five and a quarter million people had perished (*Famine Commission Report* (1880–5), part I, p. 28). Yet a uniform Code consistent with Temple's second campaign was drafted immediately afterwards. Thus not only the successful strategy applied in 1874 but the whole alternative perspective on the proper role and nature of famine relief that had engendered it were rejected during the establishment of written famine guidelines. This process of policy formulation was tied up with issues pertaining to the imperial hierarchy, bringing into play questions of individual agency; in particular, degrees of loyalty to the administration. Matters concerning seniority and locality were played out through debates over the relative importance of junior district officers' observations of famine and its relief at close hand in the periphery, as against central government's longer-term view of the agrarian economy and the state's finances.

In spite of this, most economic and social science writing on this topic has tended to focus on the question of the effectiveness or sophistication of the Codes as written. This is fine for an analysis of the material detail of relief organisation, but overlooks the specific aims and perceptions of those who created them and their role within the political context in which they were created. For example, Drèze, whose fine and comprehensive analysis of famine policy in India draws proper attention to the ultimate weakness in British political commitment to the prevention of starvation and also to their 'phobia' of interference in private trade, and of gratuitous relief, does not go into detail about the extensive debates within the colonial edifice prior to the establishment of the Codes. Though he acknowledges some of the relevance historian Lance Brennan attaches to 'personalities and politics', he argues that the formulation of the first Famine Code cannot have reflected individual biases, on the grounds that the principles behind it were so consistently recited for so long afterwards (Brennan (1984), pp. 107–9; Drèze (1990), pp. 32, 98). I would argue that individual influence and political motivations was none the less of considerable importance in the first place, in entrenching a universal famine policy which contradicted the successful tactics used shortly beforehand in 1874 and are still being advocated in at least some quarters.

THEORY AND POLITICS IN THE MAKING OF FAMINE POLICY

In reintroducing the questions of agency, politics and perception in policy-making, it also becomes possible – and necessary – to investigate the nature and significance of institutional and individual ambivalence. If evidence is needed that not all priorities, tactics, or even justifications, are predetermined, Temple's contrasting statements during his management of two famine campaigns within such a short timespan provide plenty. Bureaucratic interpretations of the relative appropriateness of each approach were central in the formulation of the Codes, and we have the advantage that the prime mover and interpreter in these two cases was one and the same man.

For the first six months of his appointment as Lieutenant-Governor of Bengal, Temple based himself at Monghyr, in the heart of the Bihar famine tract, and oversaw the import of 450 000 tons of grain from Burma to be distributed and sold (at market rates) in the affected areas. A system of regular village inspection of the condition of the people was set up, so that all those needing either employment or charitable relief were reached. Thus grain was always both available and affordable – and in addition Temple later attributed the absence of mortality to the fact that there was no cholera epidemic and that the harvest proved satisfactory in the autumn of 1874. Having prepared for the worst, however, the government was left with 100 000 tons of grain in state coffers at the end of the campaign, as well as a bill for £6 333 333 (Temple (1882), p. 401). Raising a point which is still very pertinent, because of the frequent definition of famine by mass mortality, Temple complained that 'By an irony of fate it was actually argued that the danger of famine could not have been extremely urgent because it had been successfully overcome. This argument was hardly worth considering in the face of the patent, indeed the notorious facts of the time as known to a host of witnesses' (Temple (1882) p. 405).

Under attack for wasteful expenditure, Temple pointed out that reliance on high prices to attract private trade to remote tracts to which merchants did not usually sell would have been both unreliable and beyond the purses of the poorest. The leftover stocks were a better outcome than the mortality which would have resulted if the second harvest had failed without precautions, and besides, he had stayed within his prescribed relief budget. His calculation of total

expenditure was massive – if one takes inflation over the last 120 years to have been roughly one hundredfold, the bill would be £633 333 300 in today's prices. However, his figure includes estimates of the costs of unrecovered land revenue and loans, and unsold grain stocks, as well as of transport of food and relief to inaccessible tracts, none of which were included in the Bombay expenditure figures, or indeed most famine totals of the area.

Three years later, his campaign in Bombay was again based around village inspection and relief works, with what was now referred to as 'gratuitous' relief for those unable to labour. The government steadfastly refused to purchase grain, however, and indeed Temple was sent to Madras before taking up his own post, to castigate the council there for purchasing its own grain to ensure sufficient imports, instead of waiting for private trade to take its course. Once again, Temple kept his costs below each of five separate budget estimates, despite the fact that some of them were calculated on the basis of a one-year famine, only for the harvest to fail a second time in 1877. The Bombay Government's expenditure on famine relief from 1876–8 totalled £1 140 000: five times less than what was spent in Bihar for a shorter famine over a smaller area. In addition to the lack of outlay on grain, money was saved by suspending rather than remitting the annual land revenue demand, and by a series of tests on the privations not only of those in poorhouses, but also on relief works. These included checks on people's appearance, the requirement of workers to travel considerable distances from their homes, and a daily wage aimed at providing only the barest means of subsistence. This culminated in a lengthy 'experiment' with a cash wage equivalent to 1lb of grain per day for a working male adult, which led over 100 000 workers to discharge themselves from relief camps.

To be fair to Temple, many of the protests against this wage rate centred on its distribution. Temple refused to make allowances for predictable reductions in the amount of grain actually received because of corruption on the part of relief camp managers, or short-changing when workers purchased their ration. Further problems initially arose because no account was taken of dependents, and wages were not paid on Sundays, when no work was demanded, but Temple acted later to redress these situations. However, the most critical factor in the perception of the inadequacy of the 1lb wage was that it was only provided in return for a long day of hard labour without shade or rest. Not only was the kind of work required often more arduous than the agricultural tasks to which most of the rural

population were accustomed, failures to fulfil set tasks were penalised by reductions in the wage.

It hardly needs arguing, whatever the differences in circumstances, that there was an inverse relationship between levels of relief expenditure and mortality in these two cases. The critical factor in their divergent rates of success was essentially financial rather than theoretical. Indian newspapers and even the renegade Madras Government were quick to point out a change in the direction of state famine policy after an 1869 memorandum had charged every government officer in the land with the personal responsibility for preventing any starvation-related mortality under his jurisdiction. Indeed, this shift was barely denied from above, with Charles Elliott, who was to draft the Famine Codes, declaring in 1878 that 'The campaign against famine, like other wars, if properly conducted must have its butcher's bill' (*Famine Commission Report* (1880–5), appendix I, section V, p. 110). It was not surprising, either, that higher priority should be given to fiscal concerns in 1876–8. The devaluation of silver had severely weakened the entire rupee economy, and the prevailing ideological climate in Calcutta would have made it virtually impossible for famine expenditure at the 1874 level to have been attempted again. Bombay Presidency's finances were particularly parlous, to the point that they had been unable to grant any of the limited number of routine requests for agricultural loans in 1875.

One would not expect the British to have defended themselves, though, on the grounds that they could no longer afford the costs of effective relief. The prevailing argument was, rather, that a more fiscally stringent approach was itself both more effective and judicious. To argue for the justice (as well as the necessity) of keeping a tight rein on public funds, even – and indeed especially – during potentially expensive famines, it was, however, necessary to create a distinction between the general public interest and the needs of the large part of the population suffering from famine. This could be done by recourse to apparently scientific logic for the benefit of the state's actions on the one hand, and blame of the victims on the other. Many debates throughout this period were conducted in highly theoretical terms, with the works of Robert Malthus – on the inevitability and necessity of famines in overpopulated areas, and John Stuart Mill – on the need to ignore sentiment and apply scientific principles of political economy, particularly prominent, as Srinivasa Ambirajan has shown (Ambirajan, 1971, 1976). What I want to suggest is that the British were not so much hidebound by theory – although they were certainly

dogmatic – as inclined to use it as an external justification for policies that really reflected the state's own short-term needs. In defending the disastrous famine campaign in Bombay in 1876–8, therefore, administrators, notably including Temple, claimed that private trade had met the needs of the famished far better than it would have done if the government had participated in grain transport, and that ungenerous relief conditions had been necessary to weed out the lazy and to prevent the agricultural population from becoming 'demoralised' – the contemporary term used to imply what is now called dependency – instead of cultivating the land. If those who rejected the relief camps had been among those who died, this was their own folly, and was so far beyond the capacity of government to legislate for that they should not even be counted among those dying as a result of famine (Temple (1878), p. 108). This tendency to blame the poor on moral grounds for their situation reflected common English late-nineteenth-century attitudes, as encapsulated in the Poor Laws, and was accentuated in the colonial context by a denial of responsibility for the normal condition of the peasantry (there was never a Poor Law in India), and what amounted to racist perceptions of India as 'the land of famine'. With the direct involvement of both Malthus and Mill, the Government of India had been able to create and follow its own justifying logic both before and after the fact.

The obvious inconsistencies between the 1874 and 1876–8 campaigns, not only in policy but also in the nature of such declarations upon its basis, afford an opportunity to look closer at the evidence concerning the questions of whether all state participation in the grain trade was counter-productive and whether liberal relief tended to reduce the agricultural population's own endeavours to cope with famine. There is no space here for a detailed empirical analysis, nor a full discussion of the various arguments put by different parties. However, Sir Richard Temple's own writing provides such a rich divergence in perceptions that it is worth considering.

INDIVIDUAL PERCEPTION AND AGENCY: THE CASE OF RICHARD TEMPLE'S INCONSISTENCY

Temple's change of tactics has been portrayed (for example, by Suresh Singh) as a crucial personal transformation following widespread criticism of his Bihar campaign (Singh (1993), pp. 141–2). However, he was a man for whom some forms of consistency were important.

As a former Finance Member of the Viceroy's Council, he always stayed within prescribed fiscal limits and he also set great store by 'imperial discipline'; that is to say, not only obeying the directives of more senior members of the colonial hierarchy, but doing so without dissent or debate. In a subsequent autobiographical account, he also tried to argue that the two campaigns were run on similar lines, with only circumstances (specifically that most of the Bihar grain trade used river transport, impossible during a drought) necessitating government grain purchases in 1874. Further, he held that the saving of lives in a small famine should not necessarily have been regarded as a precedent for a much larger problem (Temple, (1881), pp. 333–7). This cannot explain the great reduction in expenditure in Bombay, however, and his surprisingly informal correspondence with the Marquis of Salisbury, the then Secretary of State for India, reveals stark variations in both his empirical observations and his declarations of theoretical principle – the only consistency of which was that they always served to justify his current policies. His remarks within a single volume of letters (Temple: 1874–7) on the questions of native dependency and of the risks of harming private trade (and therefore, implicitly, on the propriety of stingy relief conditions and absolute non-participation in the grain trade) are especially disparate.

In 1874, he praised the Bihari population for its 'wonderful thrift' in ensuring that their wages would last, and insisted that early liberality had kept relief labourers in good condition, so that they were physically and mentally ready to return to their fields at the earliest opportunity (ibid.:, 22 May 1874). Indeed, they cultivated a larger than average area of land: 'The immediate exodus of the ablebodied relief labourers from the works on the falling of the rains – the prompt industry with wh[ic]h the crops have been sown – are very satisfactory, and go far to dissipate the notion that the people were becoming demoralized' (ibid.: 7 July 1874, 1 October 1874). On the government supply of grain, he asserted categorically that 'the Works do not interfere with trade', and attacked critics in the English press for ignoring evidence, which the native press, embarrassingly, seemed better able to understand, that trade had stopped in any case: 'they see things through spectacles of their own pre-conc[eive]d notions' (ibid.: 15 May 1874, 20 July 1874, 30 May 1874). In arguing for reliance on the profit motive alone, they were 'quite forgetting that under such a process the poorest classes would perish' (ibid.: 15 May 1874). Thus the strict policies suggested by his opponents, of absolute non-intervention in grain markets and of limited relief employment,

were seen not only as a recipe for failure but ones which relied on false accusations about the supposed character of the native population. In reality, he argued, the success of the second 1874 harvest, and therefore the early end of the famine, had much to do with the hard work and foresight of the affected cultivators. What was being seen was not their supineness, but the lack of grace of his fellow Britons, who were not fit to govern well if they could not 'show ourselves capable of appreciating such good points as they have' (ibid.: 20 July 1874). He might also have added that decent levels of nutrition and relief near to people's homes were likely to have been critical in preventing the dissemination of cholera: always a bigger killer than starvation in Indian famines.

Temple's annoyance at such unempirical preconceived notions did not, however, prevent him from quoting them more or less chapter and verse in Bombay and, particularly, when attempting to correct the liberal excesses of the Madras Government, as the Government of India's Special Envoy, in 1877. He immediately prevented any further imports of grain, following the purchase of 38 000 tons before his arrival in Madras, which, he feared, may have 'discouraged and impeded the private trade upon which we must mainly depend for the supply of grain for Southern India' (ibid.: 17 January 1877). That this had not happened in Bihar, and that reliance on merchants alone had not then been seen as sufficient, were less important than that Madras's generosity – in relief and remission of the land revenue as well as grain imports – were 'heavily weighing on the resources of the state' (ibid., 27 January 1877). Instead of requiring the people to endure 'some slight pinching' for the sake of the treasury, which was 'the milk of the milch cow that feeds everybody', he was horrified to find Madras work camps, just as in Bihar, containing 'many persons who are in really *splendid* physical condition' (ibid.: 27 January 1877, 22 February 1877). It was 'nothing short of an *abuse* that such men sh[oul]d be in the receipt of state charity' (original emphases), which not only drained the coffers but was now seen as *ipso facto* evidence of 'demoralisation' (ibid.: 22 February 1877). Far from enabling people to return to their fields, the payment of generous relief wages encouraged them 'to lean too much on state support', which would be as harmful to them as to the treasury (ibid.: 1 February 1877). When huge numbers voluntarily departed the camps, this was not seen as a sign of people's preference not to take relief if they could help it – especially when it was unlikely to be sufficient to ensure their survival – but as a political protest designed to increase wages through

sympathy, and also 'proof that they were not in real distress, and could afford to stay away... eating the bread of idleness' (Temple (1878), pp. 100–1).

Under challenge from the Government of Madras, Temple specifically denied that he, like his critics in 1874, was guilty of 'a dogmatic assertion of a fiscal principle'. Strictness was 'true humanity' and, once more, it was he who had evidence on his side (Temple, 1874–77: 3 March 1877). Many of the arguments over the effects of both Temple's stringency and the Madras Government's liberality were centred around contested observations of conditions in the famine camps, as much as on principles about the propriety of different responses. When newspapers and the Madras Sanitary Commissioner insisted that the 1lb wage he had instituted was causing visible physical deterioration and high mortality rates among the famine workers, Temple insisted that he had seen far more of the camps, and was better qualified to assess people's condition by virtue of his background in famine relief. Thus it was they who relied on 'theoretical notions rather than on actual experience' (ibid.: 30 March 1877). Yet his chief gripe against the Madras authorities appeared to be their disobedience of orders from Calcutta. Thus, acquaintance with local circumstances should in any case be relegated beneath 'the uniformity of principle which is essential to vigour and precision' (ibid.: 13 February 1877). It should be emphasised, however, that these comments were set in the context of a very extensive debate, which was known to have a bearing on the future of famine relief in India, and also raised the questions of the superiority of administrative as against scientific, and local as against central, knowledge. I have discussed these themes, including disputes between Temple and Robert Cornish, the Madras Sanitary Commissioner, and the blurring of the distinction between 'theoretical' and 'empirical' arguments therein, more fully elsewhere (Hall-Matthews, 1994).

Given his emphasis on adherence to policy directives, it remains difficult to determine which, if either, of the contrary views Temple expressed during his two famine campaigns reflected his true opinion. However, when faced with the invidious task of justifying them both before the 1880 Famine Commission, he continued to argue that state grain imports had been necessary in the special circumstances presented in Bihar. Perhaps it was not for him to judge whether this might also have been true in South India as prices rose, notwithstanding the greater presence of private trade, but subsequently he argued (unsuccessfully) for the construction of more railways in the Bombay

Presidency to reduce famine vulnerability. When questioned about his expenditure in Bihar, he replied, tellingly, that 'Subsequent experience in 1877 shows that, in the case put, the life of the people could not be saved for a less sum' (Famine Commission Report 1880–5), appendix II, evidence of Sir Richard Temple, p. 50). Perhaps most interesting in this context, however, was his reply when asked, more generally, which areas of India had made the most progress under British rule. Recognising a problematic concept when he saw one, Temple immediately distinguished between material progress, for which he nominated East Bengal (itself an intriguing choice in the light of subsequent history), and what he called 'moral prosperity', defined by a 'self-reliant, independent and enterprising' population. Perhaps it was not surprising that he should refer to regions that he had himself governed as well as suggesting Punjab and the North West Provinces. Yet it was not the hard-working Biharis who won his approval, but the people of Bombay and even parts of Madras (Famine Commission Report (1880–5) appendix II, p. 29). As perhaps his final, considered, word on the dangers of demoralisation, written after his return to England, Temple argued: 'Such apprehensions have not been verified by the result. The people never seemed to expect that the State would or could do as much for them as has actually been done. They were unwilling, if they could possibly help it, to come upon relief, preferring to run an excessive risk in searching after sustenance for themselves' (Temple (1881), p. 340).

THE QUESTION OF DEPENDENCY

People's reluctance to take relief says much about the nature of British famine work in India in the 1870s, especially when they were so determinedly restricted to becoming an option of last resort, as they were in Bombay in 1876–8. In a sense they were providing for those who had already lost all entitlements (and one can hardly think of anything more demoralising in reality than to have to work in disease-ridden conditions for a sub-subsistence wage in those circumstances), rather than helping to protect entitlements, as they did in Bihar and, arguably, did again after furtive adjustments to the Famine Codes – reducing the effects of the distance and wage tests – in the early twentieth century. However, the fear of inducing dependency through over-generous relief was never gainsaid by the treasury-conscious Government of India, or deleted from the Famine Codes. This was

in spite of the fact that the evidence of the one man who had been responsible for both liberal and stringent famine campaigns suggested that in each case the famine-stricken population had been reluctant to come onto relief as an alternative to strategies to protect their long-term assets and livelihoods, and eager to return to their farms as soon as possible on the return of the rains.

The people's concern to maintain their future economic position, particularly by attempting to avoid the loss of their lands, also perhaps explains why 'demoralisation' seemed to Temple a greater problem in Bombay than it had been in Bihar. In 1874, relief effectively enabled the cultivating population to bridge the hunger gap caused by a poor season without abandoning their holdings, even in the short term. Famine policy bolstered the people's coping strategies and obviated the need for either excessive risk-taking, or sales of essential assets, as survival strategies. For those who always relied upon wage labour for their income, the works provided this during the crisis period, and the continuing strength of the small landholding classes protected their future employment prospects too.

In 1877, however, the extreme conditions imposed upon relief made it inappropriate as a temporary adaption. Indeed, Temple himself boasted that no small cultivators had come on to the camps, only agricultural labourers (Temple (1878), pp. 94–5). Rather than implying, as Temple sought to, that the landholding population of Bombay was therefore well-equipped to survive the famine without state assistance, this strongly suggests that the peasantry was becoming landless before turning to relief. British officials had long commented on the extreme attachment people had shown to their holdings, even as the government was seeking to create a profitable market in land by creating cash values in it, and extensive debates over the propriety of the right of land transfer were continuing (see, for example, Deccan Riots Commission (1876), appendix A, pp. 75–89). The 1876–8 famine was characterised not only by the paucity of state relief but also by the pressures of a recently hiked land revenue demand (the penalty for non-payment of which was eviction) and of a hugely over-extended credit market which was starting to contract, accelerated as a result of the British investigation into the causes of major riots against moneylenders in the Bombay Deccan in 1875. Thousands of acres of land had been going out of cultivation in the poorer agricultural districts of the Bombay Presidency for several years preceding the famine, suggesting that holdings had been reverting to the possession of the government or of non-farming middlemen, and foreclosures on mort-

gaged lands are almost certain to have increased as soon as the 1876 monsoon failed (see, for example, the Bombay Presidency Gazetteer (1884), vol XVII, Ahmadnagar, p. 555, showing a steady decline in the tillage of that district of 66 069 acres between 1871 and 1877).

In such circumstances, relief in camps was necessarily less able to offer a means of coping with a temporary setback, and by insisting on stringent tests, Temple ensured that only the most destitute were assisted. Given the sub-subsistence wage granted on the works in return for hard labour, and the prevalence of disease as a result of their overcrowded and insanitary conditions, relief itself was a high-risk survival strategy, available only to those who had surrendered (or had never had) the assets necessary to continue an agricultural livelihood after the famine. Thus, if either of the famines presented a problem of people becoming dependent on the state and not on themselves, it was the Bombay one, in part because so little assistance was offered so late. This was borne out at the end of the campaign, when some works were forcibly closed by the government.

The problem of 'dependency', then, seems to be essentially a product of extreme impoverishment and marginalisation rather than of too much aid. The evidence concerning the Bombay peasantry's attachment to land and distaste for relief appears to corroborate de Waal's suggestion that people respond to food shortage by seeking to prioritise their long-term prospects over their immediate hunger (de Waal, (1989b), p.7). That this was as true in nineteenth-century India as in twentieth-century Sudan has also been suggested by Bhattacharya (Bhattacharya (1985), pp. 121–3). If state relief can rationally be used as an aid to this objective, it will, of course, be attractive. As an alternative to it, it is not – except as an option of last resort. The maintenance of as great a degree of autonomy as possible is seen by the people as their best chance of survival in both the long and short terms. It is worth noting that even for those who were reduced to desperate survival measures, application for state relief was rarely the first choice. So-called early warning signals, including massive voluntary migration and crime rates, provide evidence of this, and indeed the Bombay famine campaign was much concerned with the rounding up of such 'aimless wanderers' into relief camps. It is verging on tautology to suggest that people who have had the last vestiges of their economic, social and physical autonomy removed, along with their assets, fail to behave in an independent fashion.

The paradoxical British assumption implied by the concept of 'demoralisation' – that people needed to be forced to be independent

– was brought out by two basic dichotomies with regard to the work to be carried out by relief labourers. It seemed logical enough to the government to set the famished to work on projects which reduced the risk of future famines, by improving agricultural services and infrastructure in their districts. Thus canals, and particularly railways, could be constructed cheaply in areas where their non-profitability had discouraged external investment. This threw up a series of questions. First, we should remember that Temple was insisting that facilities for the private grain trade in the Bombay Presidency were sufficient to remove all need for state intervention, even as he approved the construction of what were often the first railway lines through famine districts. Furthermore, the Bombay Government had to work hard to persuade the Government of India that such large, useful works were appropriate as relief projects when there was no guarantee that they would be completed during the famine. The Bombay Government eventually did so only on the grounds that such works were cheaper and easier to manage, and in 1879 Temple argued without success against the Finance Member of the Viceroy's Council, Sir John Strachey, for the continuation of expenditure on such famine preventative works during normal years. The fundamental conflict over the state's role in famine, where the indisputably paternalistic and interventionist fact of relief was constrained by the desire to retain a *laissez-faire* economic position and to limit expenditure, was thus brought out in the works. Just as people who are struggling to subsist will tend to avoid risk where possible, to ensure survival, thus rationally contradicting the economistic assumption of the universal rational desire for profit maximisation, regions which are famine-prone because they contain neither good farming land nor non-agricultural resources and lack major trade routes cannot expect any kind of investment from private companies. The state itself also remained highly ambivalent over whether it wished to spend its resources on such essentially negative projects (that is to say, ones which may have prevented future revenue loss, but would be unlikely to accrue extra benefits) even during relief. Sanjay Sharma has shed extra light on the way relief programmes were chosen primarily in the interests of the state's own development by suggesting that famine workers were used earlier, in 1837, to construct much of the imperial infrastructure in the countryside, such as police stations and roads for military use (Sharma, personal communication).

This dichotomy also surfaced in the selection of relief workers. Temple's stringent relief philosophy in 1876–8 dictated that only the most desperate should be allowed into the camps, and his checks included a

simple visual inspection to ensure that people looked sufficiently destitute to deserve aid. However, the Public Works Department was understandably reluctant to take people who were too weak to work, particularly on the meagre 1lb of grain per day provided, and cases were frequently reported in which the test of need conversely became a test of capacity to labour, often measured by the ability to withstand physical blows on arrival at the camps (see the Poona Sarvajanik Sabha's Famine Narrative, No. 4, quoted in Digby (1878), vol. 1, p. 344). It was hardly surprising, given this ambivalence, that relief camps themselves had such high mortality rates, nor that the people tended to perceive the works as being less charitable than as punitive forced labour, if not genocidal concentration camps (Arnold (1984), pp. 106–7).

Though it might be fair to say that Sir Richard Temple tended towards the paternalistic view in internal arguments over famine policy, we have already seen from the contradictions in his writing that he was willing and able to argue on either side of such debates. The concentration on dependency, which in his opponents' rhetoric in Bihar and his own in Bombay depended more upon a moral assessment of people's responses to both famine and relief than on economic formulations, served as an ideal smokescreen behind which to hide all real motivations, priorities and even sentiments. If the aim of famine relief had been, above all, to enable the people to survive the scarcity period without either excess mortality or long-term damage to their economic and physical health – as it did appear to be in 1874 – logic as well as Temple's arguments suggest that neither demoralisation nor the absolute necessity for free trade would have been on the main agenda. Further, analysis of dependency from the perspective of the people suggests that the real issues involved were quite the opposite of those debated. Given relief to support their adaptive strategies on their own lands, people took as little as possible and left early. Only when the population was allowed to slide into a position of economic, social and physical helplessness did parts of it seek to rely wholly on the help of others.

THE QUESTION OF FREE TRADE AS A FAMINE POLICY

A similar situation was true of the dogma surrounding the need for *laissez-faire* to prevent harm to the free market. The belief that excessive state involvement in the foodgrain trade was liable to become a disincentive to private merchants who, in combination, were

capable of transporting far greater quantities of food to famine districts, was certainly logical. However, British administrators tended – except in 1874 – to rely solely upon this one principle, demonstrating an ignorance of the complexities of the market, and in particular of a series of other critical factors which discouraged grain traders from meeting famine-induced demand. First, as Sen's Entitlements Theory brings out, the chief problem for the starving was the inability to pay the excessive famine prices that were supposed to be attracting trade (Sen (1981), pp. 154–6). Sellers were inevitably wary of meeting a demand which was not backed by available resources. They were also aware that such high prices were doubly false, in that they had been escalated through fear – and often by deliberate, speculative manipulation by local grain storers – as well as by demand. They therefore represented a highly risky investment. Given that many major grain exporters from fertile districts such as Punjab could make a healthy profit by fulfilling orders from Europe or labour colonies such as Mauritius, there were plenty of reasons to overlook the higher prices offered in famine areas on a necessarily temporary basis.

They were, after all, not used to transporting grain to inland agricultural districts, and often had poor capacity to do so, because of the underdevelopment of transport networks, in both material and systematic terms. And they were aware that, even where the local population could afford the inflated prices, they were liable to collapse at any point. Any rain, or state response, could bring prices down before consignments had reached their destinations. Indeed, even local traders sometimes exported grain from famine districts for fear of government-imposed price controls, as well as of looting and social odium incurred by their profits (Famine Commission Report, (1880–5) part III, p. 74). This was, of course, cited as the reason why the government should publicise the firmness of its intention never to intervene, but to little avail. Seeing the state fluctuate in its intentions, traders appear never to have ruled out the possibility. Indeed, it was pointed out in the 1880 Famine Commission Report that even Adam Smith and John Stuart Mill had recognised the need to be aware of exceptions to their general rules on free trade, specifically where transport was inadequate, or where fears of famine generated an effectively extraneous distortion of the price mechanism (Famine Commission Report, (1880–5) part III, p. 77, in the summary of Dalyell's report on past famines in Madras). Part of the problem of British dogmatism in the administration of India was that bureaucrats tended to be far more cognisant with summaries of the fashionable supply and demand theories than with the texts that

expounded them. Private trade from competitors also constituted a threat, with little information available about local markets in famine districts – barring prices, which the government publicised. External traders could not predict each other's response to the situation and therefore feared a drop in prices through excessive opportunistic supply.

It would seem, then, that traders had a far more sophisticated understanding of the nature of the demand pull than the entirely price-related one of the British. In an inevitably unequal market, such transaction cost factors as the length and strength of the relationship between buyer and seller, the certainty of payment, and the ease and cost of delivery, were visibly more important. Third, the desire to encourage the maximum movement of grain through *laissez-faire* was not entirely logical, for three reasons. First, as has already been suggested here and elsewhere, the crises of famines related to the need to bridge a gap at a time when ordinary assets, including labour, decreased drastically in value *vis-à-vis* the cost of subsistence. Price-wise, this problem tended to be most acute at the outset of famine, before any traders were able to respond even if they wished to, and it was for this reason, for example, that the Madras Government chose to import large quantities of grain soon after the rain failure in 1876. Second, experience in Bihar in 1874, and also in the Orissa famine of 1866, suggested that the problem of speculative hoarding by traders – which taxed the British greatly – could be reduced by state entry into the market as a seller at going rates. For similar reasons to those outlined above, there was little sense for private merchants in continuing to hold grain for profit at the risk of missing out entirely on the trade that had been started. Further, many local traders were so small that even they feared for their access to new supplies as prices rose. Thus when prices were highest they withheld their stocks of grain to guarantee their own household needs, reporting that they would dare to sell only after prices had started to fall, indicating a foreseeable end to the famine crisis (Famine Commission Report (1867) vol. II, Evidence of trader Baboo Rughoo Nath Chowdhry; Famine Commission Report (1880) Information Collected in Bombay (Bombay, 1879), ch. 3, Evidence of Colonel Anderson).

CONCLUSION

Evidence recorded in the famines preceding the formation of the Indian Famine Codes suggests that prevailing notions of people's

tendency to become dependent on relief instead of working for themselves, and of the harmfulness of all forms of direct intervention or participation in foodgrain markets, were hugely oversimplified by the key individuals responsible for creating them. This served not only to reduce the sophistication of the Codes, but also to entrench relief paradigms within them that diminished the effectiveness of British famine policy. By failing to consider famine response adequately from the perspective of either the famished victim or the trading beneficiary, policy-makers overlooked a considerable number of important factors, the implications of which ran directly contrary to their assumptions about the nature of both the problem and the supposedly ideal solution.

This was not, however, a coincidence. The state's acceptance of any degree at all of responsibility for famine relief was socially and politically expedient. Both the fact and the political implications of hungry, wandering masses in the years following the 1857 Mutiny – as well as the Irish potato famine – were too dangerous to ignore. Initially, there were several schools of thought regarding the most appropriate ways of handling famines, varying from the highly interventionist and paternalistic to the limited formula eventually spelled out in the Codes. The application of such different strategies depended in part on the fluctuating mood of *ad hoc* experimentation of the time, but to a larger degree on the political agendas and personalities of the Provincial Governors, Viceroys and senior administrators concerned. Thus it was that Lord Northbrook instructed Sir Richard Temple to save all lives at any cost in 1874, while Lord Lytton and Sir John Strachey ordered him to save money in famine relief at any cost in 1877. Temple's personal valuation of imperial hierarchy over either strategy enabled him not only to obey, but also to justify the logic of each. This raises three points of fundamental importance in the understanding of the nature of famine policy formulation in any period or place.

First, that theories about the nature of famine and relief often derive from what is expedient for the state, in this case demonstrably, thanks to the way in which Temple contradicted himself in declaring principles which suited the current strategies he was adopting. The very simplicity of those paradigms which emerged in the Famine Codes from a desire for minimum levels of state participation and expense helps them to hold some water in many circumstances, but also enables them wilfully to ignore aspects which do not serve the direct or indirect interests of the relievers. The interests of the fam-

ished, including the maximisation of their survival chances, are by no means necessarily of the ultimate importance, or even the highest priority, to the devisers of relief policy. Without becoming overly sanguine about the effectiveness of particular tactics, it would certainly serve those researchers concerned to devise comprehensive solutions to the problem of famine today with reference to past case studies to concentrate their best efforts on those campaigns, such as that of 1874, which had the effective relief of famine as their own highest priority.

Second, that bodies such as the state – and also supragovernmental organisations today – are not homogenous entities, and that the roles and perceptions of individuals are important at all levels, most particularly when they have considerable political influence, or persuasive eloquence, or both. The endurance of Strachey's view of relief within the Famine Codes may say more about the longevity of the conception of the state to which he, as opposed to Northbrook, subscribed. In the specific matter of relief, however, he won a huge and significant political and intellectual battle in the 1870s to set the agenda, and was personally responsible for its expression in the form of a Code. Institutional circumstances – such as a dominant and enduring antipathy to large state expenditure, which was both ideological and pragmatic – may have reduced the likelihood of any subsequent individual's desire to challenge that agenda within the colonial context, but this does not reduce the initial importance of such factors as Strachey's unique autocracy and Temple's unique respect for hierarchical discipline. It was neither necessary nor inevitable that broadly uniform Famine Codes should have been written at all in India in the 1880s, and plenty of less influential administrators in the periphery opposed them as constraints rather than guidelines. It should be remembered too that heterogeneity arises at the collective level as well as the individual. Many differences of opinion about optimal famine management in India were played out regionally. For example, when Strachey ordered that Madras's strategy be overridden through Temple's intervention, it was interpreted by the local government as an expression of central power rather than of economic theory. This was manifested in the humanitarian statement of intent at the beginning of the Madras Famine Code, although its strictures necessarily reflected those demanded from above (Madras Famine Code (1882), p. 1: 'In conducting a campaign against famine it must be laid down as a first principle that the object of State intervention is to save life and that all other considerations should be subordinated to this').

Perhaps the prime lesson of this case study, then, is that it emphasises the important and conflicting roles of different forms of agency, particularly individual, in the formation of policy at the state level – a critical fact which is of widespread contemporary relevance, far beyond the question of famine, and yet has been persistently overlooked or denied by structuralist analysis within Development Studies. This does not mean to deny the importance of wider social forces or structural factors in creating the context in which policies are formed; merely that within essentially ambivalent decision-making bodies, such as the colonial state in India and many modern agglomerations of aid givers, individual agency is often as important, and sometimes critical, and should therefore not be neglected.

Note

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7 Famine Relief, Piecework and Women Workers: Experiences in British India[1]

Jocelyn Kynch with Maureen Sibbons

It is now generally accepted that India has a good record for protecting the population against famine (Walker (1989), pp. 101–9; Drèze, 1988), but a poor record for promoting the well-being of women (Kynch and Sen 1983; Drèze and Sen (1989), pp. 204–25; World Bank, 1991). While there is not necessarily a connection between these two facets of development in India, it is striking that the core relief policy of protecting food entitlement through employment did little or nothing to improve the labour participation rates of women. It is often argued that greater labour participation at higher levels of renumeration is important if women are to improve their bargaining position within households, and their fall-back position should they cease to be members of a household (Elson (1992), pp. 37–41; Agarwal (1991), pp. 226–9; (1988), pp. 91–4; see also Kishor, 1993).

The main focus of this paper is Indian women's access to famine relief employment in British India, and how a small window of opportunity for women to earn wages and control their own labour was reduced as a result of a discourse between famine administrators (including engineers) and Indian society.

The Indian famine relief policy and codes evolved during the period of economic transformation or restructuring which included recurrent famine between the mid-nineteenth century and 1920. At the time, famines were seen as crises of employment rather than food, especially for the growing numbers of wage- labourers and declining occupational groups such as weavers. The objective of relief was to save life but, by the turn of the century, cost-effective relief had become the priority. The value of the output of relief work and its contribution to development were criteria for effective relief. In pursuit of the priority of cost-effectiveness, famine officers argued that the use of piecework, or payment by results, was advantageous, although the deleterious effects

of piecework in excluding women were recognised. Piecework was contrary to Famine Codes in 1896, except as part of a test of distress (early in the famine) or to induce people to leave works (at the end of the famine). It is interesting to look at how the argument was won.

Women did present themselves on relief works in large numbers, often making up a majority among the recorded men, women and child workers. There can be no question that there was a demand for work from women, just as there is today on employment guarantee schemes and relief works (Drèze (1988), pp. 97–8). Some of these could be expected to be new entrants into wage-labour.

The use of piecework, which was contrary to policy, in the 1896–7 famine is suggested as a turning point in the arguments about the women relief workers and their control over their own labour. We shall explore how social constructs and government famine policy interacted to constrain women's access to work. Official documents suggest awareness of the trade-offs involved, but argued that less costly aversion of famine released resources, both for agricultural loans which would maintain livelihoods and for infrastructural or irrigation development, would improve household material well-being in the longer term.

The structure of this chapter is as follows. Before focusing on women workers, we examine the importance of the famine of 1896–7, and in particular the experience of Bengal, in the context of British Indian relief policy in the last decade of the nineteenth century. We next consider the contemporary comparisons of 1896–7 relief operations with those of 1873–4, which spurred on the pursuit of cheaper relief. We conclude that the choice of payment system was central to the argument that the 1896–7 operations were an improvement, and also affected women's access to relief employment. Women either 'refused' or did not obtain relief work in some districts. The preference for the piecework payment system is examined critically. We then turn to women relief workers in Bengal 1896–7, concluding that changes in the payment system had two effects on women: they increased the barriers to entry into employment, and confirmed the social prejudices against women working outside the home. An assessment is made of the arguments that the relief operations were successful, and in our conclusion we question whether the payment system, as part of management practices, adequately addressed the consequences of exclusion of women.

The lessons for women were not new: that government would support their life as dependants or helpers in preference to their

becoming workers in their own right. What is hard to assess is whether women could have the potential to be, in this narrow sense, the beneficiaries of famine policy in the context of transformation.

A TERRIBLE FAMINE IN 1896–97 AND RELIEF POLICY

The famine of 1896–7 affected 200 000 square miles of India and about 40 million people; after only a year's respite, the famine of 1899–1900 affected more than double the area and about 60 million people (IFCRF, 1901; Bhatia (1967), pp. 239, 251; Bandyopadhyay (1987); pp. 13, 54).

These were arguably the two most terrible famines of the century. For the British Administration, the famines provided a test of the provincial Famine Codes, which were based upon the principles laid down by the influential 1880 Famine Commission (IFC, 1880). Bhatia (1967; p. 261) points out that a dual test of successful famine management was 'saving of human life and economy in expenditure'. Bandyopadhyay (1987), p. 44) quotes from Holderness's *Narrative of the Famine in India in 1896–97* that for all India, Rs72.7 million were spent on direct relief (apart from loans and advances to the ryats – peasants or tenants under the Bengal Tenancy Act 1885 – and remission and suspension of land revenue), at a rate of 1.24 annas (14.8 pies) per day per person relieved. Relief expenditure was less than expected: the Famine Commission of 1898 calculated that direct relief would, on past experience, have cost Rs114.5 million (IFC (1898), para. 339).

If we accept, as will be shown below, that the relief operation was cheap, there still remains the question of the effect that economy in relief had upon the depth or extent of distress. It is this criticism that concerns us here, in the light of the strong tone of self-congratulation evident in the documentation of the 1896–7 famine (IFC, 1898; IFC, 1901; Government of Bengal, 1897, 1898). The famine administration under Viceroy Elgin did not appear to give weight to humanitarian considerations: 'In giving relief to the weak, the emaciated and the dying [the Viceroy] Elgin was more concerned with the principle of economy than with that of saving life' (Bandopadhyay (1987); p. 51).

A debate about payment systems was central to the relief operations in Bengal, which were judged to be successful according to some very persuasive indicators. In particular, the operations were deemed 'efficient and economical' in stopping deaths from starvation, and arguably in saving life. Works of 'permanent utility' were completed

without interfering with the private sector or private charitable works. There was no interference with free trade.

Below is a summary of what constituted a successful famine relief operation, and the type of indicator used. Vital statistics, numbers on relief works and so on were routinely reported broken down by gender. The statistics on people receiving gratuitous relief (those unable to work selected for relief, usually by dole) were less detailed.

Criteria for Famine Relief Operations

- Prevent deaths from starvation
  (no or few reported deaths from starvation)
- Saving of human life (at reasonable cost)
  (no increase in mortality;
  estimated costs of relief not exceeded;
  self-acting test of distress and enforcement of task)
- No government interference with free trade
  (no government import, or ban on export, of grains etc., merchants given information or advances to help private trade)
- Work to be of permanent utility
  (conversion of existing District Board works; completion)
- Relief employment works not to compete with private works
  (restrict wages; loans and grants to individuals)

The indicators (in brackets) were the result of evidence-based inquiries into famine. We should note the extreme narrowness of the criterion of deaths from starvation. The saving of life at reasonable cost was pursued through 'technical' or 'practical' improvements, which appeared uncontroversial. Restricted or low wage levels on employment schemes remain problematic to this day: for example, the paying of rates below the statutory minimum wage on employment guarantee schemes was challenged as illegal, and wages were realigned with the minimum wage (Hirway (1986), p. 84; Rao *et al.* (1988), pp. 96–8; World Bank (1991); p. 181).

The arguments at the turn of the century are expressed persuasively. The Revenue Department, Agriculture (Famine) litter the Final Resolution (Government of Bengal, 1898) with phrases about *communications (roads, rail, information), rights (knowing about, recording), power to resist (prosperity, physique, morale), local knowledge (facts, influences, detail)*. It sounds empowering as well as cheap.

A dilemma was whether people should be relieved as economic actors able to work, or as social beings whose activities were defined

by custom. In the Famine Code, individual workers were to be assessed for tasks, but this was impossible in practice (Loveday (1913), pp. 90–1): work was done in gangs, and quality supervision time for individuals was not available. The emphasis upon local responsibility and local factors ensured that social customs were taken into account (such as appropriate behaviour of the 'respectable proud' with regard to working, or payment systems), and there were major advantages to be gained from using family structure as a means of organising famine labour. Choosing payment systems compatible with custom was good practice in smoothing famine relief management and effectively reaching the famine sufferers. However, the British Administration remarked upon trade-offs between certain 'good management' practices and the effect on the availability of relief to women. The pursuit of good administration and cheap relief fashioned relief policy which, in relation to women, happened to meet with Indian social approval.

Famine policy administrators attempted to relieve the distress of an employment crisis without challenging prevailing rules of behaviour, which impose rigidity in local labour markets according to, for example, Rudra (1982). One potential benefit of famine, challenging social constraints on women's labour market participation, was not realised. Research suggests such a potential: remarking on the appearance of a structural break in wage adjustment before and after the 1974 Bangladesh famine, Ravallion (1987, p. 127) writes that 'A plausible explanation for this [change in the way the labour market adjusts dynamically towards its long-run equilibrium] is that *the famine disrupted social customs, including payment systems, within local labour markets*. This may have been due to the appearance in many local areas of new workers, having migrated from flood-affected areas' (emphasis added). The choice of a payment system of piecework with acknowledged negative effects on women's participation and wages deserves closer examination.

The famine administration had a better, if intuitive, grasp of implications from a second point made by Ravallion: that, where urbanisation is low and/or agricultural labour demand is wage inelastic, 'the gain in rural income from an extra job will exceed the wage from that job' (Ravallion (1987), p. 174). This makes employment schemes an effective form of relief; it also opens the argument for reducing the relief wage without costing lives (but not necessarily supporting livelihood or alleviating suffering).

BENGAL EXPERIENCE OF 1896–97 COMPARED TO 1873–74

In particular in Bengal province (the modern states and nations of Bihar, West Bengal, Orissa and Bangladesh), the famine reports suggest that the agenda of relief was set by a government wishing to obliterate memories of a perceived extravagance in relieving the last major famine in that province, in 1873–4, which had affected 14 million people (IFC, 1901) – the 1896–7 famine affected 13.245m. (There had been distress requiring relief in three of the intervening years.) We shall pay special attention to this comparison between 1896–7 and 1873–4 in Bengal.

The famine relief operations of 1873–4 achieved a terrible notoriety which was not deserved (Hall-Matthews, ch. 6 in this volume; Bhatia (1967), pp. 82–7; Bandyopadhyay (1987), pp. 44–50; IFC (1880), para. 97). The two criticisms were extravagant losses on grain imports and liberality of relief wages. We are not concerned with the first of these (on which see, for example, Hall-Matthews, ch. 6 in this volume).

The second criticism of operations in 1873–4 was directed to the generosity of relief offered, both in terms of liberal wage-scales on works and other forms of relief, such as advances of grain and cash to *zamindars* for relief of their tenants. In total, Bhatia estimates that 6.6m people were employed on relief works from November 1873 to September 1874, for a cash and grain wage bill of Rs12 900 401; 2.6m people were relieved gratuitously costing Rs2 554 718 in cash plus 57 000 tons of rice, and advances of grain and cash came to Rs10 554 740. The Famine Commission of 1880 estimated the cost to have been eight times higher than that normally spent (Bhatia (1967), p. 86).

The relief operations of 1873–4 averted famine and suffering. Hall-Matthews (ch. 6 in this volume) describes the operations as a 'generous and particularly successful campaign'. On the beneficial results of government intervention in the foodgrain market, Bhatia writes that 'in the midst of the chorus of official criticism of this policy on the ground that the Government had incurred financial loss on imports, this lesson, in later famines was lost to the great misfortune of the country' (Bhatia (1967), p. 85). Even Loveday comments on the throwing aside of issues of economy, that 'it is, perhaps, open to doubt whether [the government] have not been unfairly criticised. Their fault lay rather in excess than in principle' (Loveday (1913), 54).

Exactly what was the excess of the 1873–4 operations that the administrators of 1896–7 believed that they avoided? The estimates and costs incurred in famine operations in 1896–7, and a comparison of the totals with 1873–4 were as shown in Table 7.1: the lower cost of the relief operations in 1896–7 are quite remarkable if viewed purely in terms of public expenditure. Our evidence will point towards low relief wages as the main source of savings.

Table 7.1 Costs of relief operations, 1896–7

Expenditure	*Estimate* *Rs*	*Actual* *Rs*	*Saving* *Rs*
Relief works & gratuitous relief, salaries, establishment	11 293 093	**10 961 981**	+331 112
Advances (Land Improvement Act, modified)	1 192 522	**282 566**	+909 956
Bounties for wells	4 467	**7 458**	−2 991
Total	12 490 082	**11 252 005**	+ 1 238 077
Comparing 1896–7 with 1873–4:			
Expenditure in 1873–4	Rs 66 100 000		
Expenditure in 1896–7	Rs 11 252 005		
Saving in 1896–7	Rs 54 847 995		

Notes:
(12 pies = 1 anna = 1/16 rupee)

Estimated wage/worker/day	16.9 pies
Estimated dole/head/day	8.6 pies

Government of Bengal (1898) opines that the two famines were comparable in terms of 'causes, extent, intensity, development and in the rise in numbers in receipt of State relief', but claims that 'the methods adopted for relieving distress, the cost, and in a large degree the moral effects on the people' were different. 'In both famines alike the paramount object of all famine relief administration, namely, the saving of human beings from death by starvation, has been fully attained, but on the present occasion at a greatly reduced cost, aggregating only a sixth part of that incurred by the State in 1873–4' (1898, p. 3). The claim is that the methods and results of operations in 1896–7 were an improvement. The reasons given are: first, because of good management and information, better administration because of the experience gained in 1873–4 and later

scarcities, use of the reports of the Famine Commission, and the 'more minute knowledge of the agricultural economy'. The second reason was the greater power of the people to 'resist the effects of calamity' because of the railways, better communications and increased material prosperity.[2]

Another supposed legacy of the relief of the 1873–4 famine should be noted, albeit with reservations:

> Though the administrators of famine relief in 1874... may have committed mistakes and erred on the side of excessive liberality, they were at all events conspicuously successful in saving life, and left behind them traditions among the people of confidence in the will and power of Government to rescue them from the horrors of starvation.
>
> (Government of Bengal (1898), p. 3)

If we turn to a precis of the progress of the famine of 1896–7 (Table 7.2), we can see that the monitoring and tests of distress began in June 1896, and that the Government of Bengal was determined to keep an orderly relief operation, with enforcement of task, and later the introduction of the Blackwood system of 'piecework with a maximum wage'. The tasks to be done were drawn up by the Chief Engineer, a Mr Glass, in December 1896; Mr Blackwood was the Assistant Magistrate in Darbhanga district. The Public Works Department was influential: they strained at the leash to be allowed to introduce piecework payment in Bengal and other provinces. The shortage of suitable staff resulted in disciplinary failures (that is, labourers demanding wages without work) in January 1897, and requested military officers arrived in April. In June, the touring officer found able-bodied women receiving gratuitous relief in two districts in a relaxation of the Famine Code. In Khulna and Nadia districts, some women were 'excluded' from relief works, and local officers exercised discretion. The need to keep a tight hold over local discretion was pointed out, and it was decided that lower-class able-bodied females should be sent to the workhouse when barred from relief work. In May, the organisation of charitable relief was completed, and, coincidentally, piecework was officially sanctioned. From May onwards, numbers on relief works were less than numbers gratuitously relieved – an unexpected finding in a system famous for being based upon relief by employment.

Table 7.2 'Progress' of the famine of 1896–7 in Bengal (according to Final Resolution No. 385 of Govt. of Bengal, 1898)

1896	
26 June	**District Officers asked to report special circumstances** – indicating probable need for relief
15 August	Symptom of approaching distress (crops in Patna)
23 September	**Special report** – rain shortfall, high prices
3 October	Restlessness – grain looting report
8 October	Agents buying grain for export (Bihar), price rises, unrest; **Scarcity expected**
15 October	**Famine Code s56: conversion of District Board road works to test relief. Monitoring** of symptoms; unclear reports of distress
November	Statement that **government will not interfere with private trade; merchants given predictions. Press circulated**
11 November	**Test works** already open in Seven districts; labourers leave some test works if task enforced. Protests against grain export are ignored
20 November	**Sonepur Conference** (after reports under Famine Code s9), attended by Governor, Revenue Secretary, Native and European officials, and non-officials. Relief measures discussed
4/5 December	**Muzaffarpur Conference** attended by Revenue Secretary, Chief Engineer of Public Works Dept, officials. **Chief Engineer prepares table of scales of work, enforcement of tasks**. Details of measures, allowances. **Grants for wells; advances (Land Improvement Loans Act) to landowners for petty works. Free use of government forest produce. Advances to trustworthy men for grain imports to very inaccessible areas**
1897	
January	**Famine established in Seven districts** and declaration expected in others. Rush of labourers on to works, impossible to control or exact task (test of distress). Lack of staff. Clamour for wage without labour in two districts. **Chief Engineer gives 'practical hints on management'. PWD restores discipline and rigidly enforces tasks. End of month: 338 810 on relief (incl 75 691 gratuitous)**
15 January	**Muzaffarpur Conference: PWD to take over administration of relief works as soon as possible**
February	**More test works converted to relief works**. Acute distress centred in Patna Division (North Bihar). **Darbhanga Conference: 'elaborate' details of management of relief work for local officials**. Work output improving but PWD short of staff (request to government of India). **Order to relieve dependants of relief workers in villages. End of month: 268 213 works, 141 789 gratis**

Table 7.2 *Continued*

March	Wider distress – **test works convert to relief in Chota Nagpur; relief in Presidency and Orissa divisions.** In Patna division, PWD slow to take over works – request to government of India for commissioned as well as non-commissioned officers. **End of month: 302 789 works, 225 748 gratis**
April	Deepening crisis. **Military officers arriving to help PWD in Patna division. End of month: introduction of piece-work in place of elaborate task-work system. 365 512 works, 312 955 gratis**
May	Increase in acute distress. **Government Resolution No. 181TR–Fam. of 6 May sanctions piecework. Opium advances bring cash to Patna division; loans and advances encourage land preparation. Government agency imports grain to Palamau. Charitable relief organisation completed. Piecework extended. End of month: 828 715 total (gratis > work)**
June	**Beginning of month: 384 252 work, 457 782 gratis**, then less (monsoon). **In Khulna, Nadia districts, able-bodied women given gratis relief (test prescribed by Famine Code relaxed**, self-acting criterion of distress removed, discretion of local officers crucial and here wrongly used). **Lower-class females sent to workhouse if able to work.** In North Bihar, gratis relief not too free, works 'efficient and economical' and not interfering with private works. **Larger task (test of distress) being enforced**; morale and physique better
July	Labourers return to agricultural employment. Gratis have to wait for harvest (in Patna some gratis refused). **End of month: 166 429 works, 395 505 gratis**
August	**Operations reduced.** Champaran district – piecework introduced except where works closing **(Famine Code allows piecework with descending rates to induce workers to leave.) End of month: 81 987 works, 253 789 gratis**
September/ October	**All famine operations brought to a close**

Notes: Bold type = policy actions; PWD = Public Works Department; Gratis = gratuitously relieved.
Source: Government of Bengal (1898).

Overall, there was initial resistance to the tasks required, but strict enforcement of work outturn was vigorously pursued. Gratuitous relief became of increasing importance at the peak of the famine; this is shown in Table 7.3. The percentage of the affected population in each district who were relieved is illustrated in Figure 7.1, which indicates the geographical distribution of suffering and distribution of relief employment.[3]

Table 7.3 Average daily numbers relieved in selected months, comparison of 1896–7 with 1873–4

Month	*1873–4*		*1896–7*	
	Gratis	*Works*	*Gratis*	*Works*
January	378	113 224	32 199	157 235
May	305 052	1 694 142	414 324	376 295
June	508 770	1 198 908	459 000	360 698
July	685 595	632 259	425 186	218 181
September	23 272	242 079	5 578	35 426

The high numbers gratuitously relieved should be understood in a context of the perceived extravagance in the earlier 1873–4 famine in Bengal, which biased the evolution of the Famine Codes and the famine administration in Bengal against, *inter alia*, alleged liberal wages on relief works. In considering the balance of numbers on works and relieved gratuitously shown in Table 7.3 and Figure 7.1, we should also recall the cheapness of relieving people by a cash dole in villages, or through home-working in the case of *purdhanishin* women (see Table 7.1).

Shifting people out of the 'able-bodied' category was totally contrary to the entire reasoning behind the Famine Codes – that work

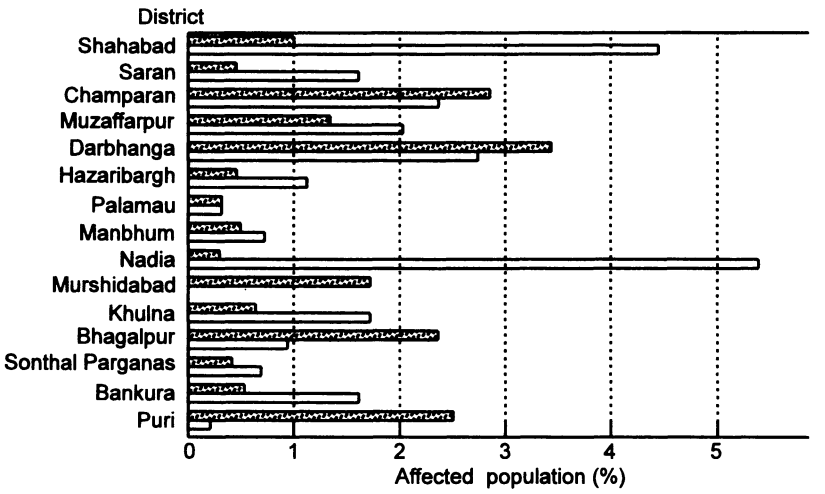

Figure 7.1 Percentage of affected population on relief in Bengal, 1896–7

should be a test of distress, and employment should be offered to all who apply (IFC (1880), pp. 49–61). From February 1897, dependants of workers could be transferred on to gratuitous relief by sending them back to villages. After piecework was sanctioned in May 1897, names of dependants of pieceworkers could be 'removed from lists of gratuitous relief' (Government of Bengal (1898), p. 37). As shown below, women were more likely to fall (or be shifted) into these categories. The argument for restrictions was that those on gratuitous relief are 'more or less a fixed percentage of the population', while those on relief works varied 'with the strictness with which the labour test was enforced, the possibility of obtaining employment outside of the Government relief works, and the general staying power of the population of the distressed areas' (Government of Bengal (1898), p. 49). Such flawed reasoning could justify refusing relief to many self-presenting famine sufferers.

THE PREFERENCE FOR PIECEWORK

The Government of Bengal (1898) had a clear agenda for good practices and economy in relief employment:

1. A properly set task was to be enforced in order to carry out the '*test of distress*'.
2. The system of payment should have the *lowest administrative cost.*
3. The system of payment should *not allow opportunities for fraud* (by subordinates) or shirking (by workers).
4. *Orderly work* and completion of work was to be preferred.
5. The system of payment should *induce workers to work harder*, but *not compete with private works* (for example, canal or rail non-famine works).

Piecework was the solution to difficulties encountered in trying to run the works effectively and economically:

> the people understand it and prefer it; the necessity for large petty establishment is removed; the elaborate classifications of labour and of maximum, minimum and penal wages which lend themselves too readily to fraud on the part of the subordinate staff, are avoided; the relief worker is able to support his dependants, and the numbers on gratuitous relief are to that extent diminished; and lastly, the

> work is cheaper and more efficient. That the average daily wage was higher under the piece-work system was expected, and in fact intended; the wage or task work is calculated to support the worker only, but one of the objects of piece-work is that by hard work the labourer will earn sufficient to support his dependants.
>
> (Government of Bengal (1898), p. 45)

The Chief Engineer, Mr Glass, also thought that piecework was the only effective means of regulating numbers, especially floods of workers not in real need. Reports from districts suggest that non-professional labour deserted from works in large numbers when piecerates were introduced, at least in the short term, and there is no evidence that the same workers returned.

The disadvantages were acknowledged: the enormous difficulty of setting a rate to maintain the weakly or inexperienced without allowing professional labourers to profit; the need to prevent small contractors from 'creeping in' (contract work was proscribed). Anyone without dependants was reaping an unnecessary profit from the state. Lastly,

> there is a tendency for professional labour to drive others out of their gangs. That women and children on a piece-work will be less in proportion was anticipated, and the actual results exemplify this most clearly.
>
> (Government of Bengal (1898), p. 45)

The Famine Codes were opposed to piecework (for example, Bengal Famine Code (1892; revised 1895); appendix IV). But in February 1897, the Government of India decided that, if distress was not so acute as to drive people unaccustomed to labour into relief works, payment by results was more economical than task-work. When distress was acute, and there were many inefficient labourers to be provided with employment, task-work should be enforced rigorously.

The use of piecework allowed relief management to generate more outturn of work at lower cost (Government of Bengal (1898), appendices vol. I, p. 48). By 1913, the Bengal Famine Code stated, 'The principle of the system [of stone-breaking work] lies in payment by results, with a special rate for the weakly, so that they may earn enough to live on' (Bengal Famine Code (1913: revised edn), appendix II, pp. 194). Piecework remains a part of employment schemes to this day (Rao *et al.* (1988), pp. 97–8).

Indeed, the arguments remain similar: a study of the Employment Guarantee Scheme states:

> EGS stipulates that men and women are to be paid equal wages. However, the actual system of payment mostly goes against women, since it is based on a 'piece rate' to the group which has completed the job, to be shared equally. (World Bank (1991), p. 181)

WOMEN RELIEF WORKERS IN BENGAL, 1896–7

The consensus of contemporary opinion at the end of the nineteenth century was that men suffered higher mortality then women in famines. For example, the increased number of females per male between the 1891 and 1901 Censuses (the ratio rose from 958 to 963) was attributed to the 'relatively high mortality among males in the tracts affected by the great famines of 1897 and 1900', and the Census of 1911 supported this view with extracts from the famine reports and other papers on famine mortality (Natarajan (1972), pp. 5, 79–83). After the turn of the century, two factors disturbed this view. One was the greater impact of epidemics (plague, influenza and malaria) on famine deaths of females, and the second was the reduced deaths of men attributed to the 'absence of wandering' achieved because 'the people by 1908 had learnt by experience that Government was anxious and willing to assist them' (extract from United Provinces Census Report 1911, in Natarajan (1972), pp. 82–3).

This view, however, can usefully be questioned by disaggregating the mortality data, which shows that the gender impact of famine is age-, region- and time-specific (Kynch and Sibbons, 1993; Kynch, 1997a and 1997b). Gender roles certainly had an impact on the risks that men and women faced, and the suffering they incurred. The collection by women of free produce was an important coping strategy in some districts. Perhaps what was more important to relief policy was the belief that men suffered more, and also the context of fear of migrant agricultural labourers – the Imperial Government preferred rural labour to have an attachment to land to keep the population firmly rooted and loyal.

Of course, the famine operations were entirely staffed by men – police, district officers, village headmen or landowners – British or Indian, they were all men. Agricultural labourers had no voice, and women had no voice except through men. Advances for village works,

revenue remissions, grants and loans under the land improvement acts, Rs1 bounties for wells, and even the Rs1 per month paid to *chaukidars*, advantaged the controllers of assets, and were man-to-man transactions.

Unless physically barred from employment on the relief works, which happened in Nadia, Khulna and Murshidabad districts in 1896–7, women nevertheless presented themselves in large numbers. Table 7.4 shows the reported ratio of men to women (ignoring children) in each district under different systems of payment. In the districts that excluded most women from work, the highest relative numbers of women were found on gratuitous relief, which women dominated by about eight women to each man.[4] On the relief works, the proportion of women was high, usually falling between 30 and 45 per cent of all workers (Figure 7.4), and much higher on individual works or in some months. A later assessment of an average task-working gang on works in 1897 was that it would consist of '20 men capable of digging, 5 carrier men, 34 women, and 21 children between 10 and 14 years' (Bengal Famine Code (1913), appendix II, p. 24). This is a higher proportion of women (0.74) than most task-work proportions in Table 7.4 indicate because the latter include the opening and closing of works, and women were probably undercounted in the weekly reports. In spite of this, the reported ratio was rarely more than two men to one woman. The total numbers of women are shown in Table 7.5.

Despite the acknowledged barriers to women presenting themselves on piecework, the numbers were often large, as is illustrated graphically (in Figures 7.2a and 7.2b). Large numbers of women relief workers were expected by the 1880 Famine Commission, and this expectation was the basis of objections to piecework:

> An unusual proportion will certainly be women, and a large fraction will consist of children [and others] unfit for labour... Any attempt, therefore, to make these classes earn their living by ordinary piece-work could not fail to result in great suffering and mortality. (IFC (1880), para. 133)

The Commission also predicted increases in gratuitous relief, for which there was no test of need, although the recipients had to be selected as 'suitable objects for gratuitous relief'.

Table 7.4 Bengal, 1896–7, famine-affected districts; ratio of men to women under different payment systems of relief

District	*System of payment*				*Gratuitous relief*	
	Piecework	*Task-work*	*Daily wage*	*Dependant*	*Other gratis**	*All gratis*
Shahabad	n/a†	0.78	1.27	1.00	0.38	0.41
Saran	5.14	0.57	1.07	n/a	0.30	0.30
Champaran	1.16	1.05	1.55	0.69	0.51	0.53
Muzaffarpur	2.78	1.42	1.86	0.00	0.34	0.34
Darbhanga	1.54	0.94	1.13	0.00	0.32	0.32
Hazaribargh	1.76	n/a	13.61	n/a	0.76	0.75
Palamau	1.24	n/a	1.91	n/a	0.55	0.55
Manbhum	1.80	n/a	0.49	n/a	0.42	0.47
Nadia	353.87	4.76	4.94	n/a	0.18	0.19
Murshidabad	387.67	61.36	n/a	n/a	n/a	n/a
Khulna	n/a	608.59	n/a	n/a	0.13	0.13
Bhagalpur	0.91	1.04	1.02	0.43	0.32	0.32
Sonthal Parganas	1.43	1.25	1.25	0.54	0.48	0.48
Bankura	2.11	1.09	2.07	n/a	0.47	0.45
Puri	14.57	21.67	n/a	0.81	0.50	0.53

Note: * Other gratis is gratuitous relief other than in poorhouses or kitchens and approximates to village-based relief, including 'respectable persons' relieved in their homes.
† n/a indicates 'not applicable'.
Source: Government of Bengal (1898), Appendices vol. I.

One reason for discrimination against women was their supposed physical weakness, in spite of evidence of hard work. Women were usually employed as carriers (Class B workers), with diggers, upon whom carriers' work depended, being men (Class A). Class C was people unused to labouring, and Class D the feeble. In the 1896–7 famine in Bengal, these four classes were reduced to two – classes B and D, which simplified operations. The hard task of the carriers, which in other provinces of India was described as 'nominal', was a matter of pride for the Government of Bengal. A report to the Government of India is quoted:

> there is no doubt that the carriers are more heavily tasked here than elsewhere, and that they have to work as hard as the diggers.

(Mr T. Higham, quoted in Government of Bengal (1898), p. 41)

Table 7.5 Bengal, 1896–7, women in famine-affected districts; numbers of women receiving relief under different systems

District	*Piece work*	*Task-work*	*Daily wage*	*Dependant*	*Other gratis**	*All gratis*
Shahabad	0	315 633	78 496	7	1 887 032	1 930 145
Saran	4 636	1 033 967	339 685	0	5 051 956	5 067 844
Champaran	4 82 204	5 496 950	751 003	119 602	5 393 157	5 744 515
Muzaffarpur	32 513	1 882 137	616 141	43 636	5 306 868	5 570 157
Darbhanga	1 97 116	7 804 879	2 027 606	137 589	9 124 423	9 393 310
Hazaribargh	61 346	0	350	0	7 455	121 380
Palamau	176 807	0	13 330	0	239 283	239 283
Manbhum	373 530	0	90 996	0	544 509	597 996
Nadia	193	374 741	62 596	0	3 776 195	3 776 396
Murshidabad	552	3 000	0	0	0	0
Khulna	0	223	0	0	801 562	836 650
Bhagalpur	44 483	449 108	53 169	1 582	334 474	336 056
Sont hal parganas	48 104	57 757	9 142	2 527	200 746	204 631
Bankura	77 617	22 410	4 056	0	358 527	381 857
Puri	13 334	8 979	0	799	8 077	8 876

Note: * Other gratis see Table 7.4 above.
Source: Government of Bengal, (1898), Appendices vol. I.

> I believe it may safely be said that in no other Province are the full tasks for a minimum wage so heavy or as fully worked up to as they are in Bihar. This is partly due to the high proportion of men to other workers... but a great deal is undoubtedly due to the vigilant attention paid to the daily outturn for each male unit. Nor can it be said that the task-workers receive a higher wage than elsewhere. (Mr T. Higham, quoted in Government of Bengal (1898), pp. 43–4)

One attraction of relief works to women was the higher wage relative to men's wages that was available there, being 70–100 per cent of the men's wage on famine relief works across India in the 1890s, compared to 50–75 per cent on canal works (Kynch, 1987; see also recent evidence cited in Drèze (1988); fn. 200). Statistically, neither the average wage paid, nor the outturn of work, was significantly affected by the proportion of women and children on works, which refutes the belief that more women *per se* necessarily influenced the value or cost of relief works. However, the piecework system of payment offered an opportunity for male labourers to push women off works, and the famine administrators argued that the men could earn enough to support women 'dependants', in accordance with Indian custom.

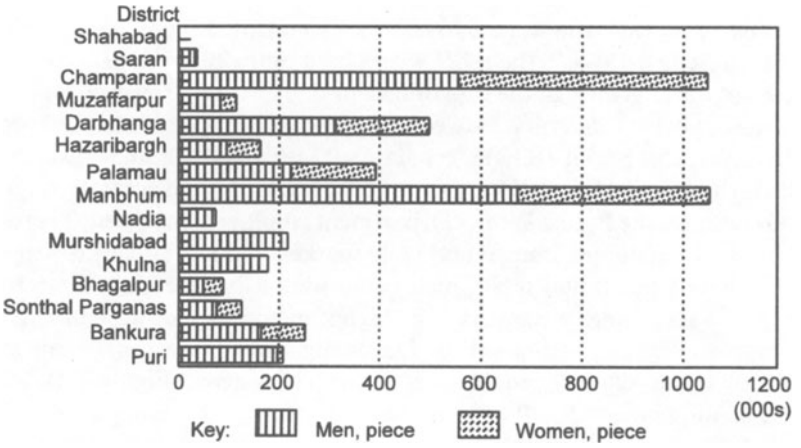

Figure 7.2a Bengal famine-affected districts, 1896–7, men and women piece-workers

Source: Government of Bengal (1898).

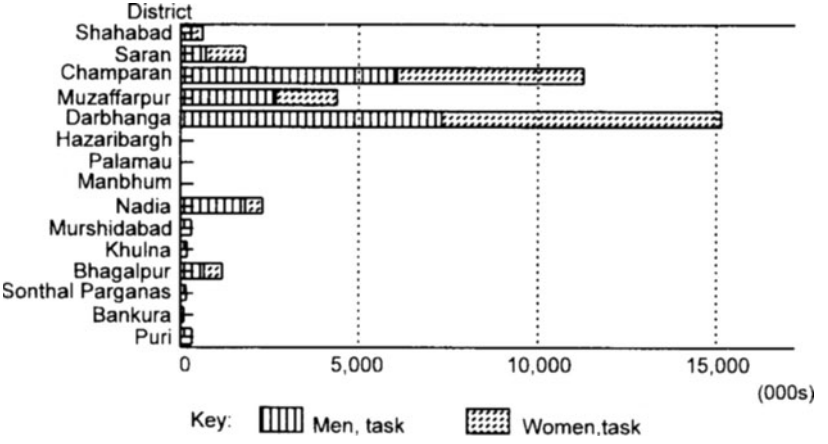

Figure 7.2b Bengal famine-affected districts, 1896–7, men and women task-workers

Source: Government of Bengal (1898)

Disaggregating the wage by system of payment (Figure 7.3), we see that in Bengal 1896–7, the relief wages paid in the districts per worker did not differ greatly in the case of task or daily wages. However, wages of pieceworkers *did* vary between districts, being double the task or daily wage in Saran (Bihar), Nadia and Murshidabad, and lower in Hazaribargh and Sonthal Parganas. In Nadia, the high piecework wage was because the Public Works Department employed only men. Therefore, although more women and child workers did not affect the wage or value of individual relief, men could obtain preferential access to higher wages under piecework. The highest percentage of women relief workers (Figure 7.4: Shahabad, Darbhanga and Bhagalpur) were in districts with relatively equal rates across pay systems (Figure 7.3).[5]

The influence of the Public Works Department as the organisers of relief works, has already been noted (Table 7.2): famine officials often admired the 'professionals'. Some undoubtedly had a blind spot as far as women were concerned, siding with labouring men and discouraging them from attending the works. Exceptionally, women organised themselves into gangs in order to work on PWD works, as reported in Darbhanga (Government of Bengal (1898), appendices, vol. I p. 51).[6] The alternative relief for work was a piecework system of homework for *purdhanishin* women (not lower class); otherwise, as we have seen, local discretion was heavily criticised if able-bodied women

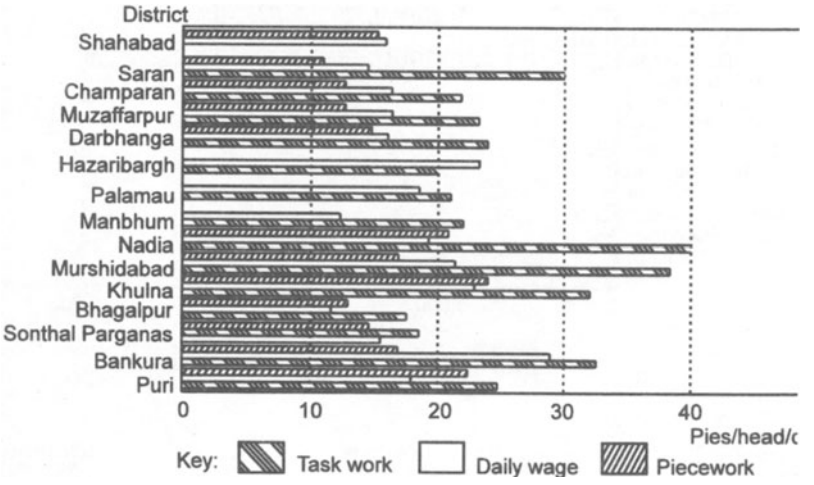

Figure 7.3 Relief work wages, Bengal, 1896–7

Source: Government of Bengal (1898), Appendices vol I,. Statements IV..

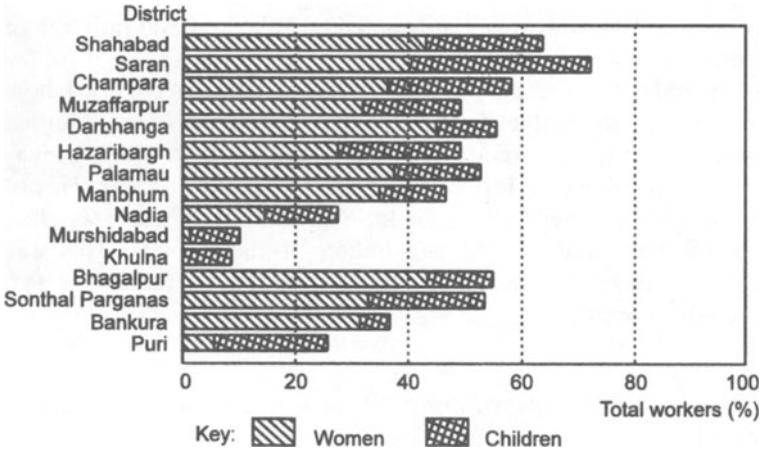

Figure 7.4 Percentage of women and children relief workers, Bengal, 1896–7

Source: Government of Bengal (1898).

received gratuitous relief, and lower-class women were sent to the workhouse.

The policy of relief through homeworking for *purdhanishin* is usefully summed up by a modern study of Lahore by Shaheed, quoted by Agarwal (1994):

> the conflict between economic necessity and social disapproval is resolved by women taking up home-based piecework... in effect rendering the fact of their working invisible to the outside world... they are vulnerable to economic exploitation and are not in a position to openly question the social mores that confine them.

Women's access to relief employment was conditional on consent in a way that men's access was not. The piecework system, combined with the preference for smoothly running works, encouraged familial grouping in gangs. Famine officials noted the benefits of co-operation in gangs: labourers were more tolerant of short work from a member of their family and had better incentives to work harder. This failed to confront the failure of households in terms of women's well-being, problems of widows or abandoned women, or to give women an effective voice in relief. Such experiences could structure family relations: as Agarwal (1994) points out, we cannot assume that women's

concern with the family necessarily extends to the husband rather than to sons.

Policy-makers in Bengal in 1896–7 believed they recognised how people coped – in families through male employment – and adopted piecework systems that reinforced this in the home (through dependency or home-working for *purdhanishin*) or on relief works. This in itself ensured that there was to be little questioning of the prevailing system of rules, and limited negotiation of these rules.[7] This was crucial for women because of the transformations in India of which famine were a part.

RELIEF 1896–7: ASPECTS OF SUCCESS AND FAILURE IN BENGAL

The famine occurred in a 'healthy' year, although births fell, as is usually the case in famines. The Sanitary Commissioner, busy with plague preparations, recorded mortality increases of 6 and 4 per mille for males and females respectively over the previous ten-year average in 1897. The Famine Report finds mortality increases over the previous five-year average in affected areas during 1896–7 in only six of the fifteen districts, mainly from cholera. Few deaths from starvation were authenticated. Restrictions on relief payment did not, apparently, cost lives directly.

However, the success of the relief operations in Bengal were in part a result of payment system proscribed by the Famine Code precisely because of its expected impact on the needy, including poor women. We shall reassess the role of piecework as part of the Government of Bengal's agenda for good practices in relief.

First, the government wished to avoid the liberal wages paid in 1873–4. Enforcement of either a task-rate or piecerate satisfied the requirement of a test of need and reduced the demand for employment. The adoption of piecework specially militated against women's employment, and encouraged their dependency on gratuitous relief (if selected). Piecework at high renumeration was used in 1873–4, and 'Many men, whose wives and children had been working on the roads, would now earn alone enough for the household, and would keep their families at home' (Temple (1874), p. 39). By contrast, piecerates in 1896–7 were driven downwards.

As we have seen, the enforcement of work was harsh by Indian provincial standards. In fact, the relief works were carried

out as cheaply as private commercial or ordinary public works, especially when under the Public Works Department. As the famine went on, the outturn of work increased and cost per 1000 cubic feet fell as 'the discipline upon the works was perfected'. Estimates from divisions suggested that in Patna (Bihar), relief works cost about a third more than ordinary works. In Chota Nagpur division, and in Bhagalpur, Murshidabad and Khulna districts, works were at or below ordinary rates. In Nadia district, works cost 6 per cent more than ordinary rates. The Public Works Department, whose measurements were thought to be reliable, found that the cost of their works as a whole did not exceed normal contractors' rates in an ordinary year.

It is questionable whether such economy is compatible with good relief policy, especially where it depended on condoning the male labourers' and supervisors' preference for excluding women.

Second, the demand for employment from women was contrary to social custom, and was expected to be depressed through higher men's relief wages earned on piecework, or through limited gratuitous relief including pieceworking at home. This bypassed the central tenet of Indian famine policy, that employment should be available to those unused to labour, such as needy women, which was the basis for rejecting piecework or contracts as unsuitable for famine relief.

A third advantage of piecerates that met the government's agenda was the lure of low administrative costs on pieceworks, the attraction of which grew with the shortage of 'suitable' staff to run relief works smoothly and enforce discipline. We shall look at this claim more closely.

The total expenditure on relief in each district is shown in Table 7.6, together with some components: expenditure on the relieved (wages, doles, rations); salaries and allowances of establishment; tools; and advances. Expenditure on the relieved dominates. Table 7.7 shows the percentage of expenditure on the relieved to total expenditure; to salaries and allowances; and to advances for village works.

'Expenditure on the relieved' made up between 28 per cent (Palamau) and 86 per cent (Champaran, Puri) of all expenditure, generally varying between 60 and 80 per cent. We would expect this to be higher in districts with more pieceworkers, but Table 7.8, in which we include the plot, shows a scatter of no significance.[8] Similarly, the ratio of 'expenditure on the relieved' to 'salaries' shows no clear association

with piecework nor, indeed, with the exclusion of women on works. In fact, the use of piecework did not necessarily reduce administrative costs, although these may have been incurred away from the relief works.

Table 7.6 Bengal, 1896–7, famine-affected districts, expenditure on relief operations (in rupees)

District	*Wage plus gratis*[1]	*Salaries*[2]	*Tools*[3]	*Advances imports*[4]	*Advances village works*[5]	*Total*[6]
Shahabad	263 470	26 492	2 313	0	21 705	357 933
Saran	611 700	101 631	37 022	0	7 700	926 107
Champaran	2 106 988	188 245	65 102	0	7 579	2 437 118
Muzaffarpur	1 143 947	185 444	73 305	0	11 779	1 483 730
Darbhanga	2 839 573	251 258	151 211	0	0	3 625 982
Hazaribargh	47 981	7 140	10 891	0	10 076	83 022
Palamau	80 092	15 208	13 787	52 500	43 125	286 290
Manbhum	208 918	38 698	3 978	0	42 093	322 270
Nadia	721 540	13 154	3 683	20 000	51 575	885 094
Murshidabad	60 331	535	0	0	11 988	78 546
Khulna	136 395	15 926	2 879	0	43 565	217 628
Bhagalpur	114 441	8 230	23 270	0	1 200	165 680
Sontha I Parganas	53 377	3 751	7 855	0	10 550	77 222
Bankura	99 648	4 228	10 925	0	2 000	121 552
Puri	70 463	6 214	1 040	3 100	0	82 103

Notes:
1. Wage plus gratis = expenditure on wages of workers on relief works, and doles, rations and allowances to all gratuitously relieved.
2. Salaries = salaries and allowances of establishment.
3. Tools = tools and plant.
4. Advances imports = advances to grain importers.
5. Advances village works = advances for village works.
6. Total = total expenditure on relief operations (including above).

Source: Government of Bengal (1898), Appendices vol. I, Statement V.

Table 7.7 Bengal, 1896–7, famine relief operations, ratio of total cost of wages to workers and doles etc. paid for gratuitous relief to other expenditure

District	*Total numbers relieved*[1]	*Wage/total (%)*[2]	*Wage/salaries (%)*[3]	*Wage/village (%)*[4]
Shahabad	5 088 848	74	995	1 214
Saran	13 106 283	66	602	7 944
Champaran	31 706 031	86	1 119	27 800
Muzaffarpur	18 989 694	77	617	9 712
Darbhanga	40 911 092	78	1 130	
Hazaribargh	768 592	58	672	476
Palamau	961 105	28	527	186
Manbhum	2 767 674	65	540	496
Nadia	10 735 315	82	5 485	1 399
Murshidabad	454 224	77	11 277	503
Khulna	1 849 362	63	856	313
Bhagalpur	1 898 418	69	1 391	9 537
Sonthal/ Parganas	867 442	69	1 423	506
Bankura	1 173 781	82	2 357	4 982
Puri	542 319	86	1 134	

Notes:
1. Total numbers relieved = workers, dependants and gratuitous.
2. Wage/total = total cost of wages of workers on relief works, and doles, rations and allowances to all gratuitously relieved as percentage of total expenditure on relief operations.
3. Wage/salaries = total cost of wages of workers on relief works, and doles, rations and allowances to all gratuitously relieved as percentage of salaries and allowances of establishment.
4. Wage/village = total cost of wages of workers on relief works, and doles, rations and allowances to all gratuitously relieved as percentage of advances for village works.

Source: Government of Bengal 1898, Appendices Vol I, Statement IV, V

Table 7.8 Bengal, 1896–7, famine relief operations, percentages on piecework and expenditure on the relieved

District	*Wage/total**	*Percentage pieceworkers***
Shahabad	74	0.00
Saran	66	0.25
Champaran	86	4.00
Muzaffarpur	77	0.69
Darbhanga	78	1.30
Hazaribargh	58	28.09
Palamau	28	48.18
Manbhum	65	39.87
Nadia	82	0.64
Murshidabad	77	47.62
Khulna	63	10.55
Bhagalpur	69	4.80
Sonthal Parganas	69	16.39
Bankura	82	21.42
Puri	86	47.43

Notes:
* See Table 7.7, column 2 for definition.
** PCPC = percentage of total pieceworkers to total persons relieved (workers and gratis).

A fourth and related item on the agenda was the orderly completion of works of permanent utility, which may in itself explain some variation in the non-wage costs shown in Tables 7.7 and 7.8. There was a benefit from the use of an agency, the PWD, with experience of infrastructural works. The conversion of existing public or district works was one solution, but there was also a requirement that relief renumeration should not compete with private works. The PWD was convinced, unlike the civil agencies, that more advantages – such as low supervision and incentives to work harder – lay in pieceworking. Last, there is the question of fraud. Opportunism or rent-seeking cannot be ruled out on relief operations, and the complicated task-work system was believed to offer inescapable opportunities.

CONCLUSION

Piecework is used in most labour contracts (Walker and Ryan, 1990; da Corta and Olsen, 1990) and can be of advantage to women, depending on its context. However, its inclusion on famine relief

works in British India was not a matter of negotiation, and some of the arguments used in its favour are not supported by the evidence.

On famine relief works, the effects on women were invidious and negative. Professional labour was favoured against new entrants, or those branded as costly or weak. Women lost opportunities to access relief in the same way as men, or to take up employment if without male support. Having adopted a limited responsibility for relief, the Government of India permitted a payment system which it recognised was against the interests of women. The presence of so many women relief workers in most districts and numbers on gratuitous relief bear witness to their distress.

The inclusion and expansion of piecework on relief works gained support from the government, relief administration and professional labourers. None of these beneficiary groups was interested in increasing women's control over, or renumeration from, their own labour, or in reducing dependency upon men, all of which were potentials of relief employment. Even among indigenous groups, where higher women's labour participation was usual, control remained with men, and disruption of social customs was avoided:

> [The Bhil men] confidentially told me that if they had had the remotest idea that they were going to be asked to work they would never have come. At last we came to a compromise. They said 'All right Bapjii [father], take the women and children' and there the matter rested... to do justice to the men I must say that nearly always the man was leaner, feebler and nearer death than his wife and children... [By July] my friend, the Bhil, walks about his fields moving his attentuated limbs in quite a jaunty manner. He still makes Mrs Bhil do most of the work, but *that is how he is built, and she is no new woman with fantastic ideas about the rights and wrongs of life.* (Report from Mewar, 1897 in IFCRF (1901), p. 32, emphasis added)[9]

However, a defensible argument was made that the adopted payment system was part of a leaner, fitter relief operation that released public funds for more infrastructural development – roads, railways, irrigation and conservancy (Bhatia, 1967; McAlpin, 1983). This included an expectation that women's well-being could gain more from the overall direction of policy than women lost from being discouraged from relief work on equal terms with men. On examination of the 1896–7 famine relief operations in Bengal, we find that

lower expenditure resulted both from low levels of per capita relief payment which fell disproportionately on women – in expanded gratuitous relief and through exclusion from higher earning – and also from restrictions on numbers of relief workers. The setting of low piecerates was not only an important mechanism in lowering relief expenditure; we have argued that the use of piecework at low rates as a practice of 'good management' or 'economy' did not address the consequences adequately.

The severity of the crises of the Indian famine period, and the undoubted successes of the Indian relief system, should not divert critical attention from the ways in which policy may have influenced 'ideas about the rights and wrongs of life'. Paradoxically, the devastating powerful economic driving forces of famine combined with the core policy of relief employment did provide opportunities to confront custom and ideas. However, in India at the turn of the century, savings on relief expenditure and social approval proved more attractive.

Notes

1. The Leverhulme Trust has provided research support for an analysis of Indian famine data by Jocelyn Kynch and Maureen Sibbons. The editors of this volume and Gerard Clark have commented perceptively on an earlier draft.
2. These claims are subject to dispute; see, for example, McAlpin (1983) and Drèze (1988).
3. Most areas and populations in the North Bihar districts (Saran, Champaran, Muzaffarpur and Darbhanga) were badly affected, as were Palamau and Manbhum districts of Chota Nagpur. A minority suffered in Shahabad (South Bihar), Bhagalpur and Sonthal Parganas (Bhagalpur), Hazaribargh (Chota Nagpur), Nadia, Kulna and Murshidabad (Presidency), and Puri (Orissa).
4. In some of these districts the failure of test works suggested little suffering, but it appears that women were distressed.
5. It would be wrong to over-draw conclusions on the relationship between women's demand for work, wage-rates, relative wage-rates and access to employment at district level.
6. The Superintendant of PWD operations in Bihar is quoted as saying, '[in three subdivisions] the professional labourer crowded the non-professional labourer off the work. By working with male labour, the professional found that he could earn more by keeping women and children out of his gang. The result was that the women organized gangs, consisting entirely of women and children, and the Commissioner... was

good enough to sanction the payment of a man's wage to all women diggers who did a full task... we have been paying women only the lower rate of wage. It never struck me before'.

7. The problems of such policy-making are indicated by Davies (1993) and Gore (1993). We have left individual agencies out of this account, although negotiations were significant (Kynch, 1997a, 1997b).
8. The extreme case of Palamau, where nearly half of relief workers were on piece rates, but only 28 per cent of expenditure was on those relieved, is partly explained by high expenditure on advances to importers for inaccessible areas.
9. The British condemned the Bhil men for their 'aboriginal aversion to work' while admiring them as 'restless and independent tribals'.

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Part II
Implications of Famine for Long-term Poverty

8 Famine, Demography and Endemic Poverty

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Studies on the connections between famine and poverty have usually been concerned with the causality running from long-term processes of poverty to periodic famines. But the reverse causation – from famine to endemic poverty, or more generally from 'conjunctural' to 'structural' poverty, in the words of Iliffe (1987) – has remained relatively unexplored. I shall attempt in this chapter to clarify some of the issues involved in understanding this reverse causation and to identify some of the possible channels of causation, citing along the way whatever empirical evidence there is.

In order to study the consequences of famine for endemic poverty, one would ideally require longitudinal investigations tracing the socio-economic circumstances of those afflicted by famine, covering a long period of time and possibly spanning more than one generation. In the absence of these ideal conditions, one can still make certain inferences, however, by drawing upon certain strands of famine literature, of which two are most important. One of them is the growing literature on the demographic responses to famine. These responses – as reflected in the crucial demographic variables such as fertility, mortality, nuptiality and migration – have usually been studied from the demographer's perspective: that is, with the objective of assessing the impact of famine on the size, composition and growth of population (Bongaarts and Cain, 1982; Dyson, 1993; Hugo, 1984; Watkins and Menken, 1985). But these demographic responses also have direct and indirect implications for the economic viability of the poor in the post-famine period. It will be one of the tasks of this chapter to try and draw out some of these implications.

The second strand of famine literature that is relevant for the present purpose is the growing set of economic and sociological studies on 'coping strategies'. It is being recognised increasingly that when the poor are afflicted by famine, they do not simply resign themselves to a passive acceptance of their fate, but try actively to protect themselves from present and future destitution by adopting various strategies (see, for example, Corbett, 1988; Campbell, 1990;

Davies, 1993). These so-called coping strategies also have implications for the processes that have a bearing on endemic poverty.

By drawing out the implications of both these coping responses as well as demographic responses to famine, and by combining them with general insights gleaned from demographic and economic theories, it is possible to generate certain hypotheses about how famines might, or might not, affect long-term endemic poverty. Let us start from where all studies of famine and demography have to start – the Reverend Robert Malthus.

In the Malthusian perspective, famines are not seen as a cause of poverty, but rather as an adjustment mechanism that brings temporary relief to the survivors. We may call it the hypothesis of 'famine as an escape valve'. Our ideas of both famines and demography have, of course, changed quite radically since the time of Malthus. But the new ideas that have emerged are not all in agreement with each other. There are significant differences in contemporary views on both the importance of famines in shaping the demography of a society, and on the nature of interactions between demographic and economic variables. Different sets of views on these matters lead to different hypotheses about the impact of famine on endemic poverty. I am not suggesting that these hypotheses were derived explicitly by those who happened to hold the views from which they follow; only that certain hypotheses follow as logical implications of the views held. I shall distinguish three hypotheses that follow from different strands of post-Malthusian views.

The first of them I shall call the hypothesis of 'famine as the principal perpetuator of poverty'. The views this hypothesis follows share the Malthusian idea of famine being a major regulator of population in pre-industrial societies, but imply the non-Malthusian idea that, far from being an escape valve for the surviving poor, the occurrence of famine is the principal mechanism through which poverty was perpetuated in the long run. The next hypothesis is a complete antithesis of the preceding one. It is fundamentally non-Malthusian in the sense that it does not regard famine as a major influence on long-term population trends, nor on the long-term processes of poverty. I shall describe this hypothesis as 'famine does not matter – in the long run'. The final hypothesis can be seen as a cross between the preceding two. It shares some of the premises of the second post-Malthusian hypothesis, but none the less maintains that famine can have very important effects on the processes of endemic poverty, without, however, going as far as the first hypothesis does to

depict it as the villain of the piece. I shall describe this hypothesis as 'famine matters – even in the long run'. In the remainder of this chapter I shall elaborate on the four hypotheses: one Malthusian and three post-Malthusian ones, arguing in the end that there is a strong case in favour of the final hypothesis.

THE MALTHUSIAN HYPOTHESIS OF 'FAMINE AS AN ESCAPE VALVE'[1]

In the Malthusian scheme, famine was assigned the role of an adjustment mechanism that brought the size of population into rough balance with nature's ability to provide food. However, despite some popular misconceptions to the contrary, Malthus did not see famine as an inevitable outcome of the unequal contest between population and food. There were several other adjustment mechanisms at work, and famine was supposed to strike only as the last resort. The one adjustment mechanism he failed to foresee – namely, sustained improvement in the productivity of agriculture – was, of course, the one that was eventually to put the spectre of famine to rest in the Western world. But he did visualise several other mechanisms that could, in principle, keep famines at bay. Some of those were malign – such as war and pestilence, which together with famine were described as positive checks. But there was also a benign mechanism, the so-called preventive check, whereby people adjusted their fertility so as to maintain a conventional standard of living. Famines would occur only if preventive checks, if any, and all other positive checks failed to restore balance: 'Should success still be incomplete, gigantic inevitable famine stalks the rear, and with one mighty blow, levels the population with the food of the world' (Malthus (1798), pp. 139–40).

Famine as Nature's Substitute for Preventive Checks

The significance of the preventive check in Malthus's schema is not just that it had the potential to keep famines at bay, but also that it enabled a population to enjoy a level of living above that of bare biological survival despite the constraints on food supply imposed by a niggardly nature. It is indeed this ability to transcend the survival frontier that in Malthus's view distinguished the human species from all other animals. Of course, not all human societies were equally successful in this regard. Where the preventive check was weak, the ability to transcend the

survival frontier was correspondingly poor, and there famine had to intervene to push the community above the frontier.

Malthus believed that the English were better off than the Europeans because they were more successful in applying preventive checks, and the Europeans in turn were better off than the rest of the 'old' world, where preventive checks were virtually non-existent. The reason for these differences in the prevalence of preventive checks – or of fertility regulation in modern parlance – lay, in his view, not in any intrinsic differences among races but in the nature of human institutions.

It is now generally agreed that almost all pre-modern societies were characterised by a regime of natural fertility; that is, a regime in which there was very little conscious control of marital fertility. So fertility regulation could only occur through variation in nuptiality; that is, in the rate and duration of marriage. There is strong evidence that European and non-European societies did differ significantly in this regard. In much of the non-Western world, where extended families were a predominant institution, universal marriage linked fairly rigidly to the age at menarche was a common phenomenon. The decision to marry was not constrained by a couple's ability to support themselves, because the extended family could be expected to tide them over until they could pay for themselves. By contrast, in England and in the Western world generally, newly-married couples were expected to establish their own homes and to support themselves from their own earnings. This convention meant that marriage was linked more to a man's perceived ability to support a family than to the age at menarche. The resultant delinking of marriage from the age at menarche, and its dependence on the ability to earn a livelihood, ensured that nuptiality could function as an adjustment mechanism in response to variations food supply: people would marry late or not marry at all in times of scarcity, and the reverse in times of plenty. It has been confirmed by recent research that the rate of nuptiality did indeed respond strongly to variations in food supply in pre-modern England (Schofield, 1983).

It is thus clear that the institutions governing family formation had a significant impact on the scope of fertility regulation. In Malthus's own view, there were other institutions that were no less important. In modern terminology, his arguments boil down to the question of property rights. Where institutions deny a person property rights to the fruits of his labour – as in a despotic society – people would of necessity be myopic and discount any future gain in consumption that might arise from the limitation of fertility. The guarantee of property rights was therefore a necessary condition for preventive checks to prevail.

That, in Malthus's view, was an important reason why preventive checks were applied so successfully in England, where liberal political institutions ensuring private property rights were more firmly established. Leaving aside for the present the contentious issue of whether Malthus was right in his claim about the absence of property rights in non-Western societies, the point that needs to be emphasised here is the importance he attached to institutions in determining whether preventive checks will prevail, and thereby allow a population to live a reasonably decent life.

In view of this link between institutions and preventive checks, on the one hand, and the obvious link between preventive checks and the level of living on the other, one can conclude that extreme poverty was caused not so much by the niggardliness of nature as by the failure of human institutions – at the levels of both society and family. If the institutions are right, preventive checks will prevail and this will enable the population to escape from extreme misery. If institutions fail, preventive checks will no longer operate and it is then that famine will appear, to provide an alternative escape route. From this perspective, then, famine can be seen as Nature's way of trying to achieve what human institutions failed to do – that is, to transform the intolerable misery of the over-populous to the tolerable living of a comfortable number.

To put it differently, famine tends to function as a substitute for preventive checks in providing an escape valve from extreme misery and raising the level of living above the floor of survival – albeit in a particularly cruel manner. It is in this sense that the Malthusian perspective can be said to regard famine as having a beneficial effect on the survivors in the long run.[2]

Apart from wiping out a part of the population, there are a couple of other ways in which famine can be seen to raise the level of living of those who survive. These mechanisms were not suggested by Malthus himself, but I include them here under the rubric of Malthusian hypothesis since they reinforce the argument that famine may entail a long-run beneficial effect. One of these mechanisms operates through famine's effect on fertility, and the other through the process of natural selection.

Short-term Effects of Famine on Fertility

In such diverse societies as England, Russia, the Netherlands, Ireland and Bangladesh, famines have almost invariably resulted in a

reduction of fertility (Schofield, 1983; Antonov, 1947; Stein *et al.*, 1975: Boyle and Ó Gráda, 1986; Chen and Chowdhury, 1977). This effect is most conspicuous in societies where variation in nuptiality provides a flexible mechanism for adjustment. Thus, while commenting on the social and demographic consequences of the great Irish famine, Connell (1955, p. 82) observed that 'Of all the casualties of Irish social life in the decades after the Famine, one of the most significant was marriage'. But even in societies where this adjustment mechanism is either non-existent or weak (as in Bangladesh), total fertility still declines because of a reduction in marital fertility.

There are several behavioural and biological reasons why this happens. Perhaps the most important reason is the separation of couples that frequently occurs as the male partner migrates in search of work and food, or as the wife is sent to her parents' home, or even divorced, to save on food. Besides, extreme undernutrition can reduce the fecundity as well as libido of both men and women. It is also possible that as lactating mothers tend to prolong breast-feeding as much as possible in order to save on outside food for the children, the resulting prolongation of post-partum amenorrhea brings down the rate of conception. Whatever the reasons may be, the effects are not in doubt.[3]

It has to be noted, however, that this reduction in fertility is somewhat offset by a subsequent rebound that takes fertility above the normal level. This rebound is explained by the fact that the post-famine population contains an unusually high proportion of women susceptible to conception, for two reasons. First, excessive infant mortality during famine leaves an unusually high proportion of women who are non-lactating and are thus unprotected by post-partum amenorrhea; and second, the immediate decline in the rate of conception following the onset of famine raises the proportion of non-pregnant women above the normal level in the post-famine period. It has been estimated, however, that the rebound does not completely offset the initial decline in fertility, so that a net depressive effect still remains (Schofield, 1983; Hugo, 1984: Watkins and Menken, 1985). To that extent, famine eases the pressure on resources, to the benefit of future generations.[4]

The Selection Effect

Those who survive the mayhem caused by famine are on average likely to be better-endowed genetically to withstand the vicissitudes of life than were the pre-famine population. Bongaarts and Cain

(1982) invoked this hypothesis as one of the explanations for the commonly observed phenomenon that mortality tends to fall below the normal level in the immediate post-famine period. The quantitative significance of such a selection process is not known, but to the extent that it does operate it would imply not just reduced mortality in the short term, but also less morbidity and greater work capacity of the surviving population in the long term – and hence a potentially better standard of living.

A related effect operates through the impact of famine on the surviving population's age structure. After most famines the population age structure is found to be characterised by a significantly higher fraction of prime age adults (say, 15–50 years), as famine takes a heavier toll of the very young and the very old. The resulting increase in labour force participation ratio and the corresponding decline in dependency ratio should aid the process of post-famine economic reconstruction.[5]

Through the combined effects on mortality, fertility and natural selection discussed above, famines may thus entail a beneficial effect on the level of living in the long run. This is the basis of the notion that famine may be viewed as a potential escape valve from extreme poverty for those who survive.

THE HYPOTHESIS OF 'FAMINE AS THE PRINCIPAL PERPETUATOR OF POVERTY'

The hypothesis that, far from acting as an escape valve from poverty, famine may actually perpetuate it, follows from the combination of two sets of ideas. One of them relates to a specific historical view of pre-modern societies in which famines and other periodic crises are assigned a primary role in shaping mortality behaviour, and the other is embodied in what I shall call the classical version of demographic transition theory, in which mortality behaviour is accorded a primary role in shaping fertility behaviour. The combination of these two sets of ideas gives rise to a chain of causation flowing from famines to mortality, from mortality to fertility, and finally from fertility to poverty. In order to see how this chain of causation leads to the hypothesis of famine being the principal perpetuator of poverty, it will be instructive to begin by considering the logically converse question of how poverty was conquered and growth perpetuated in parts of the modern world.

In his panoramic study of world economic growth, Jones (1988) has observed that, while the so-called 'modern economic growth' is a comparatively recent phenomenon, there were many instances in the earlier history of the world when the seeds of growth seemed to have germinated. In each instance, however, the momentum was lost, resulting in renewed stagnation or even decline. It was only in the early modern Europe that for the first time in the history of the world the incipient growth process did not lose its momentum, giving rise eventually to the modern phenomenon of sustained economic growth.

Why was the momentum lost so invariably in the past, and what happened in Europe in the last couple of centuries that made sustained growth possible? Economic historians are still agonising over these questions, and many different answers have been given. One possible answer can be constructed in terms of the chain of causation referred to above, in which the recurrence of famine and other mortality crises assumes a critical role. I shall develop this argument below, not because I believe it to be a particularly plausible one but because it seems to be logically implied by the two sets of ideas referred to above regarding the demographic and economic history of Europe.

The European Escape from Hunger

How did Europe finally escape from endemic hunger? At the most proximate level of analysis, the escape from hunger came about through an unprecedented rise in agricultural production coupled with improvements in transportation and marketing networks that allowed enough food to be made available wherever it was in demand, while demand itself was encouraged to keep expanding by increased purchasing power generated by the Industrial Revolution. There were, of course, more fundamental causes underlying each of these developments, and much remains to be understood about these fundamental causes. One thing is certain, however: whatever may have caused increased food availability on the one hand, and enhanced purchasing power on the other, nothing would have had a lasting impact on living standards if something else had not happened. That something else was the unprecedented decline in fertility that began to occur in the late nineteenth century – the so-called demographic transition.

The classical economic theory – of Adam Smith, David Ricardo and Malthus – had not prepared the world for what was to happen in the nineteenth century. According to their theory, population would

respond systematically to the availability of resources (capital in the case of Smith and Ricardo; land in the case of Malthus), rising when resources expanded and falling when resources declined, making long-term living standards fluctuate around what was called the 'natural wage rate'. This theory did not envisage any possibility of breaking away permanently from the conventional standard of living because an expanding population would stand in the way. As the standard of living improved, both mortality would fall and fertility would rise, thus returning it to the old level. A permanent improvement was only possible if fertility in some way failed to rise in response to rising living standards. This could not happen in the popular version of classical economic theory, which earned it the epithet of a 'dismal science'. But it did happen in Europe in the late nineteenth century (and somewhat earlier in France): that is what made the permanent break possible.[6]

Of course, fertility decline by itself could not have improved living standards permanently if improvements in productivity and purchasing power had not taken place earlier. But it did ensure that those productivity gains were preserved in the form of higher per capita income instead of being dissipated over an expanding population. In short, demographic transition was a necessary condition for the European escape from hunger, though by no means a sufficient one. What, then, was responsible for this remarkable transition that gave lie to the predictions of classical economics?

The Classical Version of Demographic Transition Theory

The earliest version of the demographic transition theory suggested that the mortality decline which occurred in the early nineteenth century was primarily responsible for precipitating a decline in fertility after a lag. There were several mechanisms that could possibly have brought this about. Until recently, the most popular among them was the 'replacement hypothesis', which stated that so long as mortality remained high, fertility remained high, since parents needed to have more children in order to maintain their desired family size (Notestein, 1945; Heer and Smith, 1967). As mortality declined, the motivation for replacement declined as well.

From the perspective of this hypothesis, what was wrong with classical economic theory was the implicit assumption that mortality and fertility were in some way independent of each other. As resources expanded and living standards rose, according to the classical eco-

nomic theory, there would occur a simultaneous decline in mortality and rise in fertility, which would reinforce each other to swell the population. But the classical theory of demographic transition argued that this mutually reinforcing effect could only be a short-lived one. Sooner or later, the very fact of a sustained mortality decline would bring fertility down, thus nullifying the reinforcing effect, so much so that the rate of population growth would eventually fall. This is what many scholars believe happened in nineteenth-century Europe.

Famines and the Secular Decline in Mortality

If this view of fertility decline is accepted, then the search for the clue to the European escape from hunger has to be pushed back one more step. One must ask: what led to the sustained decline in mortality that preceded fertility decline? This is where famine enters the picture. In the 1960s, a consensus emerged that the high average mortality of pre-modern Europe was attributable to periodic famines and other mortality crises, which raised normal mortality rates by 50–100 per cent or more. It was argued that it was the elimination of these peaks rather than lowering the plateau of normal mortality that was primarily responsible for overall mortality decline in the nineteenth century (see, for example, Flinn, 1970, 1974; Helleiner, 1967; Wrigley, 1969).

These mortality crises were precipitated by either acute harvest failure or the outbreak of epidemics. The two, of course, might have been related, either through the undernutrition–infection nexus or in some other way (for example, beggars spreading diseases at times of food crises; see Meuvret, 1965). It was thus agreed that most of the mortality crises were brought about directly or indirectly by famines and near-famine situations. Accordingly, it was supposed that it was primarily the conquest of famines that had stopped the recurrence of crisis mortality and thereby brought about the decline in overall mortality that was observed in the nineteenth century.

By combining this particular theory of mortality decline with the classical version of demographic transition theory, one may now postulate the following relationship between famine and endemic poverty. The recurrence of famine kept average mortality high in pre-modern Europe, which in turn kept fertility high, and that in its turn was responsible for perpetuating hunger by dissipating any gains made in food production. Conversely, when famines were eventually conquered, the average level of mortality came down, which in turn brought about the demographic transition towards a low-fertility

regime, which then allowed productivity gains to be consolidated instead of being dissipated away as before. It was at this point that the incipient growth process of modern Europe finally turned into a self-sustaining one.

From this perspective, it was the regular occurrence of famine that was ultimately responsible for keeping the pre-modern society entrapped in a state of endemic poverty. There was no escape from hunger, because fertility was not sufficiently regulated so as to consolidate the gains in production; furthermore, fertility was not regulated because mortality was high; and mortality was high because of recurrent famines. It is this chain of reasoning that leads to the hypothesis that famine was the principal perpetuator of poverty.

THE HYPOTHESIS OF 'FAMINE DOES NOT MATTER – IN THE LONG RUN'

The next hypothesis to be considered is the polar opposite of the preceding one: it says that famine leaves very little lasting impact. The logical basis of this hypothesis consists of two planks: one involves a critique of the premises on which the preceding hypothesis is based, and the other draws on some recent evidence on the long-term demographic effects of famine. I shall elaborate on each of these planks below.

As we have seen, the preceding hypothesis was based on two premises: a particular version of the demographic transition theory that made decline in mortality the triggering mechanism for fertility decline, and a particular explanation of mortality decline that rested heavily on the conquest of famines. Since the 1970s, however, new ideas have emerged and new evidence has come to light which render both these premises highly questionable. In consequence, the plausibility of the hypothesis itself would now seem to be in considerable doubt.

Reformulation of Demographic Transition Theory

It is by now well known that there are several problems with the classical version of the transition theory. The 'replacement hypothesis' which underlies this theory assumes that parents have a notion of the desired family size they wish to maintain. It is because they are assumed to be aiming for a desired size that they are thought to have high fertility in response to high mortality – in order to replace

the children that are expected to die. But this assumption flies in the face of accumulated evidence which shows that marital fertility happens to be close to natural fertility level in almost all pre-industrial societies. The idea of having a desired family size and the corresponding notion of replacement are relevant only after a society has made the transition from a natural fertility regime to a regime of controlled fertility. In other words, the replacement hypothesis wrongly transports the logic of a post-transition society to a pre-transition one (Caldwell, 1976).

There is also a good deal of empirical evidence that is inconsistent with the replacement hypothesis. Knodel (1975), for example, has shown, in a sample of pre-industrial European parish populations, that this hypothesis is evidently false. Furthermore, Lee's (1980) analysis of English data for the period from 1550 to 1724 showed that the rates of population growth (over units of twenty-five-year periods) had a strong positive relationship with life expectancy, which implied the absence of any significant positive relationship between mortality and fertility over the long term. In the short term, the relationship, in fact, turned out to be negative.

Conceptual and empirical anomalies such as these have resulted in significant reformulations of the demographic transition theory. In an influential contribution, Caldwell (1976, 1982), for example, has suggested that fertility begins to decline when social and economic circumstances change in such a way that the direction of intergenerational resource flow is reversed – that is, when, instead of resources flowing from the young to the old, as happens in most pre-modern societies, they begin to flow from the old to the young. This requires fundamental changes in both economic organisation of production and intrafamilial relationships. An additional, but related, factor is the degree of women's autonomy in making decisions regarding her labour-use pattern and reproductive behaviour. The decline in mortality is neither a necessary nor a sufficient condition for all this to happen, although in some cases it may hasten the process.

The Unimportance of Famine for Secular Mortality Decline

While such reformulation of transition theory serves to undermine one of the two premises of the 'famine as the perpetuator of poverty' hypothesis, the other premise has also come under increasing attack. The view that famines were responsible for the generally high level of mortality in Europe in the pre-industrial era is now increasingly being

questioned. Some striking evidence has emerged from Wrigley and Schofield's (1981) reconstruction of English demographic history covering more than three centuries, from 1541 to 1871.

In order to test the short-run relationship between food crises and mortality, Wrigley and Schofield took food price as an indicator of scarcity and used it to explain variation in mortality. Not surprisingly, they found a positive association between the two variables, indicating that food crises did indeed lead to heightened mortality – occurring in the same year at times of extreme scarcity, and delayed for one or two years otherwise. However, two aspects of this relationship are of particular interest. First, the correlation was very weak – only 16 per cent of the variation in mortality was explained by price fluctuations. Second, there was a negative feedback echo later, which depressed mortality below normal levels, so that over a five-year period the effect on mortality almost disappeared. In other words, food crises left no lasting effect on mortality. Furthermore, as far as long-term trends are concerned, not even a weak association was found between mortality and food supply (Schofield, 1983).

Using the same basic data, Fogel (1992) has adduced further evidence to cast doubt on the significance of famine mortality. He considered all mortality crises, not just those associated with famines, and estimated crisis mortality as a proportion of total mortality for units of quarter centuries as well as centuries. The following findings emerged from those estimates. First, for none of the quarter-centuries did crisis mortality account for as much as 10 per cent of total mortality. Second, the 'normal' mortality rate of the eighteenth century was as high as the total mortality rate of each of the preceding two centuries, despite the fact that the eighteenth century experienced far fewer crises. Finally, nearly three-quarters of the decline of mortality between 1726–50 and 1851–71 was because of a reduction in normal mortality, despite the relatively high level of crisis mortality at the beginning of this period, and its negligible level at the end of it. The conclusion is thus inescapable that dramatic as they were, mortality crises, whether caused by famine or not, were too scattered in time and space to have been the principal factor in the secular decline in mortality after 1540 (Fogel (1992), p. 247).

It would thus appear that famine was not responsible for keeping mortality high in the pre-industrial world, nor was mortality responsible for keeping fertility high and thereby keeping livings standards down. Therefore, contrary to the preceding hypothesis, famines cannot be held responsible for perpetuating endemic poverty. Indeed, in addi-

tion to this reinterpretation of European history, much new evidence is also emerging around the world which might tempt one to draw the very opposite conclusion: that perhaps famines do not matter all that much in the long run. This evidence comes mainly from studies of the demographic responses to famine in Asia and Africa.

Demographic Responses to Famine: The New View

To most people in the world, the recent famines of Africa evoke a picture of millions of emaciated people dying on the roadside or in refugee camps, but many serious researchers are now claiming that this picture is fundamentally flawed. In particular, the numbers of famine death that are often quoted in the media are now believed to be widely exaggerated. Caldwell (1975) was one of the first to point this out, in the context of the Sahel famine of the early 1970s. For the entire period 1970–4, he estimated excess mortality to be no more than a quarter of a million, compared to newspaper headlines such as 'Six million people facing starvation death'. The reason for this dissonance between popular perception and what is now believed to be the real picture is not far to seek.

Demographic records of Africa are notoriously poor and they become even more so during famine periods. Many casual commentators rely on pure guesswork, or generalise from unrepresentative small samples. By contrast, careful researchers such as Faulkingham and Thorbahn (1975), who were engaged in a detailed study of a village in Niger both before and during the famine, did not find any exceptional increase in mortality. The villagers were certainly in great distress during the drought, but through various coping strategies such as migration and eating of 'famine foods' picked up from the wild and so on they managed to avoid any serious excess mortality. Similar findings have been reported in various studies in other parts of Africa (Seaman, 1993).

According to this new view, what the rest of the world sees on its television screens at times of famine is not much different from the situation that the poorest of Africa face even in normal times. Since the awfulness of this normal situation is beyond the conception of most Westerners, they take famine to be an exceptional calamity. Of course, what they see is not normal for the average African, but it is normal for the most disadvantaged groups. In a careful recent study of a region in Mali, Hill (1989) has shown that it is these disadvantaged groups that become most visible during famines, because they

are the ones who take to the road or assemble in refugee camps and on the outskirts of towns in search of food and thus represent the face of Africa to the television cameras.

He and his colleagues compared the demographic characteristics of the long-term residents in two central towns of Mali – Mopti and Sevare – with those of new immigrants that had arrived in the wake of the droughts of the mid-1980s. Child mortality was found to be significantly higher for the immigrant group. This might have indicated to the casual observer that drought had raised the level of child mortality, but careful analysis showed otherwise. When the probabilities of new immigrants dying were calculated for earlier periods, no substantial change in childhood mortality was found for the preceding thirty years. None of the earlier droughts, not even the great Sahelian drought of 1973–4, had apparently left a mark on the history of childhood mortality of the migrant group. Hill thus concludes that 'The data from Mopti–Sevare suggest that the low-income, low-status groups bring their already high mortality patterns with them rather than suffering from short-term mortality crises. Some of the large increases in mortality reported by other researchers from sites where the destitute congregate may be simply due to the importation of the previously unrecognised very high mortality of the rural poor rather than due to any short-term worsening of mortality (Hill (1989), p. 178).

There are, of course, a few studies that show otherwise; for example, in the study area of Beilik and Henderson (1980) there was a genuine increase in mortality in the wake of drought. But their area was somewhat exceptional in that it suffered from a complete breakdown of civil order. Leaving aside these exceptional cases, Hugo (1984, p. 16) thus generalised the experience of Africa as follows: 'modern famines do not appear to have taken the massive toll of lives that they did prior to World War II and in general they have had little discernible impact on mortality levels at the national level'.

Hugo further commented that the situation may be different in Asia, where excess mortality caused by famines appeared to be genuinely high. While this judgement remains generally valid, recent research has unearthed some notable exceptions even there, especially in the Indian sub-continent (Dyson, 1991a, 1991b, 1993; Dyson and Maharatna, 1991, 1992; Maharatna, 1992). Dyson explains these exceptions in terms of some special epidemiological features that obtained in British India. Most famines were precipitated by droughts, and the hot and dry conditions that accompanied drought were especially inhospitable for mosquitoes and fleas. As a result, the incidence of malaria and

plague, which were normally among the biggest killer diseases, often declined below normal levels in the first few months of famine. Of course, later, as the monsoon returned, malaria would become particularly vicious, and that is what accounted for most of the famine deaths in the nineteenth century. However, occasionally, the timing of the monsoon was such that malaria could not spread in the usual manner; in such cases, total famine mortality, including the initial decline, could turn out to be negligible. In some cases, mortality could even decline, as it did in parts of the Bombay Presidency in the famine of 1905–6 (Maharatna, 1992).

India's epidemiology has changed a lot since then, so what was true in the nineteenth and early twentieth centuries probably no longer applies there. There were, after all, large excess deaths both during the Bengal famine of 1943 and the Bangladesh famine of 1974. But it is interesting to note that Dyson and Maharatna (1992) did not find any significant increase in infant mortality during the Bihar famine of 1966–7, even though the authorities are known have to failed singularly to organise sufficient relief and public works on this occasion, unlike in times of other crises in the post-Independence period. On the basis of these experiences, Dyson (1993, p. 25) concludes that, even for south Asia, 'excess mortality is not an inevitable component of famine'.

It is none the less true that famine mortality was generally significant enough in British India to have had a discernible effect on long-term population growth. This is particularly true for the half century between 1871 and 1921. Population growth was particularly depressed during this period – averaging about 0.37 per cent as against 1 per cent in the following three decades. In trying to explain the reason for this difference, McAlpin (1983b) considered many alternative hypotheses, including possible improvements in living standards and public health measures in the later period; but she eventually came to the conclusion that the only plausible explanation was that an unusually frequent occurrence of famines and epidemics during this period was responsible for depressing population growth below the normal level.

India's experience in this regard is unique when one recalls how little impact famines have had on long-term population growth in both pre-industrial Europe and contemporary Africa. It could be argued, however, that what made this experience unique was the unusually close succession of many large disasters that occurred in the shape of either famine or epidemic in the late nineteenth and early twentieth centuries. The question then arises: considering the more

usual frequency of famines, what can one say about the demographic impact of famines in general? Watkins and Menken (1985) have recently provided an answer to this question through a simulation exercise.

After collating a huge amount of material on historical and contemporary famines, they developed some stylised facts about the frequency, duration, intensity, age–sex specific mortality and fertility effects of famine. Then, under some alternative specifications of these parameters, they calculated short- and long-run effects of famine on population growth for a closed society with zero net migration. In one of the specifications it was found that, following a severe famine (one that raises the crude death rate by 110 per cent over a two-year period), a population that was initially growing at 0.5 per cent regains its initial size in only eleven years, and after ninety years total population size remains only 7 per cent below what it would otherwise have been. It would thus appear that a one-shot famine, even a severe one, would have a negligible effect on long-term population growth.

Of course, whether in practice the population recovers or not would depend on how frequently it is subjected to these shocks. In order to bring this dimension into analysis, Watkins and Menken estimated the frequency that would be required to nullify the recuperation of population. They then noted that this 'required' frequency is much higher than the typical frequency of famines observed in the real world. So they conclude: 'the only way famines and other mortality crises could have been a major deterrent to long-term population growth when the underlying normal mortality and fertility rates would have led to even moderate growth is if they occurred with a frequency and severity far beyond that recorded for famines in history (Watkins and Menken, 1985, p. 665).

This conclusion would apply even more strongly to contemporary developing countries where the 'normal' rate of population growth is much higher than those assumed in the simulations, because the higher rate of normal growth would make recovery that much quicker. It would thus appear that in so far as endemic poverty is affected by long-term population movement, famine does not matter for long-term poverty, whatever immediate hardship it may cause.

It must be remembered, however, that the simulations referred to above applied to closed societies with zero net migration. In an open society, famines would generally induce migration; and to the extent that it constitutes permanent migration, famines would clearly affect population growth as well as living standards in the long run. It has

long been believed that the great Irish famine of the 1840s provides an archetypal example of this kind of effect. The conventional account of this famine has seen it as a classical Malthusian phenomenon of too many people trying to live off the limited capacity of land. In the wake of the famine, a quarter of the Irish population was lost, nearly half of it in the form of permanent migration to Britain or America. The long-term reduction in population that followed is believed to have been the dominant influence on the subsequent evolution of all aspects of Irish social life, including the role it played in improving the living standards over time (see, for example, O'Brien, 1921).

But this conventional wisdom began to be questioned in the 1960s. A revisionist view emerged that was tantamount to the claim that famine did not matter. In particular, it was argued that the famine had very little to do with the migration that ensued. Following a trail of argument first advanced by Karl Marx and John Elliot Cairns, the revisionist historians argued that the migration that had happened would have happened in any case because of certain changes that were taking place in relative prices of commodities in the international market. The price of potatoes, the principal crop of Ireland, was falling relative to that of livestock products, which induced a massive shift of land from tillage to pasture. But since livestock farming was much less labour-intensive relative to potato cultivation, there was a huge reduction in the demand for labour, which is what was really responsible, in this view, for inducing the migration (Cullen, 1987; Crotty, 1966).

As we shall see in the next section, this revisionist view of the Irish famine has itself come under attack in recent years. The point we wish to stress here is that the revisionist view does complement quite neatly Watkins and Menken's analysis for closed populations, by showing that even when migration is allowed for, famine may not matter for long-term population trends, and therefore may not matter for living standards in the long run – in so far as they are affected by population growth.

THE HYPOTHESIS OF 'FAMINE MATTERS – EVEN IN THE LONG RUN'

We shall now present the case for the view that famines can have profoundly adverse effects on long-term living standards. It should be clarified, however, that by arguing for this case we do not intend to

revive the extreme view represented by the first post-Malthusian hypothesis, which saw famine as the principal perpetuator of poverty (see p. 167). As we saw in the previous section, there are very good reasons for rejecting this hypothesis, especially since recent research has shown that two of its principal premises are based on rather shaky grounds. However, its rejection does not necessarily warrant the acceptance of the second post-Malthusian hypothesis, that famine does not matter in the long run. This proposition was based primarily on the recent evidence on demographic effects of famine. It was seen that the short-run effects were in fact much less pronounced than was previously thought, and were in any case transitory in nature, as the long-term effects seemed to be vanishingly small. I shall nevertheless argue that there are sound reasons for believing that famines leave a trail of adverse consequences, even far into the future.

First, even if we believe that the demographic effects are only transitory in nature, we have to allow for the possibility that short-run, non-demographic effects can have lasting consequences for economic well-being. We shall, in fact, identify three channels – involving economic assets, nutritional status and institutions, respectively – through which the non-demographic effects may operate.

Second, we must also allow for the possibility that even the short-run demographic effects themselves may have long-term economic consequences. The point here is simply that, even when the impact on a particular demographic variable is reversed over time, this may leave an irreversible impact on some other variable that might be of significance. We shall illustrate this point by considering the impact of famine on sex differentials in mortality rate.

Both these lines of argument rely on the concept of irreversibility: that is, the idea that short-run effects of both a demographic and non-demographic nature may leave some irreversible impact on individuals, families and society that will have long-term implications for living standards.

Finally, we shall suggest that perhaps the new view of long-term demographic responses to famine discussed in the preceding section is not so invincible after all. Specifically, it will be argued that the new view does not allow for certain mechanisms through which famines may affect long-term fertility behaviour, and through it long-term living standards.

In short, we shall consider five different channels through which famine may entail adverse consequences for long-term living standards. Three of them are non-demographic in nature – involving

assets, nutrition, and institutions; and two of them are demographic – involving sex differentials in mortality rate and long-term fertility behaviour.

Irreversible Effects via Non-demographic Routes: Shrinkage of the Endowment Set

The emerging literature on coping strategies reveals some systematic patterns in the way poor households attempt to safeguard their economic viability when faced with a sudden threat to their livelihood. It has become fashionable to view these strategies in a favourable light, since they obviously help many poor people to ride out temporary shocks without disastrous consequences. Nevertheless, some of them can have quite deleterious long-run consequences.[7]

A useful way of classifying the coping strategies is to note the sequence in which they are usually adopted. Corbett (1988) has identified a three-stage sequence in which people try to cope. In the first stage, they would try to augment current income, draw upon the conventional insurance mechanisms of the 'moral economy', and sell off the unproductive assets that were held primarily as a store of value. If all these actions still fail to maintain conventional levels of consumption, people would 'choose to starve' and allow themselves to become undernourished rather than sell off their productive assets. However, when the state of undernourishment has become too severe, they would begin to sell productive assets – this is the point when the second stage sets in. The third stage comes when a household becomes totally destitute and cannot survive even after selling off whatever assets they have. Migration and congregation at refugee camps remain the final option.

The major distinction between the strategies in the first and second stages is that the first-stage strategies purport to maintain the subsistence basis of the household by protecting the productive assets for as long as possible, while the second-stage strategies destroy it. In the revealing terminology of de Waal (1989), these are called 'non-erosive' and 'erosive' strategies, respectively. I shall argue a little later that the first-stage strategy of letting oneself become undernourished is not necessarily 'non-erosive'. However, the distinction is still a useful one, and so is the sequential analysis. Households do try to avoid the second stage for as long as possible; but many of them eventually fail. It has been observed, for example, that distress sale of land went up sharply during the Bangladesh famine of 1974. A survey of eight

villages showed that the number of land transactions in 1974 was double the level of 1972, and almost two-thirds higher than the level of 1973 (Alamgir, 1980). National level data also confirmed the heightened level of land transactions in the famine year (Khan, 1977).

Similar phenomena have also been observed frequently in Africa. After reviewing a number of case studies, Corbett concludes that 'Each of these African studies confirms a finding that has been discussed in the South Asian context, that households respond to food crisis and famine by selective and sequential disposal of assets' (Corbett (1988), p. 1106). Indeed, the loss of productive resources at times of distress is not just a contemporary phenomenon; it also happened, for example, in early modern France (Le Roy Ladurie, 1974).

If the assets lost in bad times could have been recovered in good times, then of course such loss would be of no great consequence for the long term, for after all good times do come. In a world of perfect markets one would indeed expect such recovery to take place. But markets are not perfect; of particular significance here are the imperfections of credit markets. For well-known reasons, the poor have unequal access to credit markets compared with the rich; and such unequal access can prevent recovery of assets in at least two ways.

First, the productive assets are usually of such high value relative to the current income of the poor that the only way they can acquire the necessary finance is either by a prolonged process of saving by small amounts, or by borrowing. The savings option is an exceedingly difficult one, not only because of the pressing consumption needs of the poor but also because inflation of asset value can render this option infeasible by presenting an ever-receding target. So if the borrowing option is ruled out by the imperfect credit market, it becomes impossible to recover the assets.

The second way in which credit constraints can prevent recovery is by driving a wedge between the supply price and the demand price of assets. By virtue of their superior access to the credit market, the rich may be able to use their assets more profitably than the poor, by using better and more expensive technology and complementary inputs. If that is so, the economic value of the same asset will be higher for the rich than for the poor, with the result that the price at which the rich would be willing to sell back the asset will be higher than what the poor will find it worthwhile to pay. In consequence, the reverse transaction will never take place.

That is why most of the land transactions that take place in Bangladesh even in normal times are seen to flow from the poor to the

rich, and precious little the other way round, leading to increasing concentration of land (Khan, 1988). Much the same is true about the sale of livestock by the pastoralists of Africa. In a study of the Wodaabe pastoralists of Niger, White (1987, p. 482) has noted that while the national stock of livestock recovered from the shock of the 1973 drought by about 1980, the ownership of livestock had been redistributed away from the Wodaabe households, leaving only 10 per cent of them with enough animals even for bare subsistence. White, of course, rightly emphasises that not all of this redistribution is attributable to drought, just as not all the redistribution of land in Bangladesh can be attributed to distress sales in times of crisis, but in both cases crisis sales no doubt played a part.

Thus both theory and evidence suggest that the sale of assets that occurs during famines and other crises is usually an irreversible process. As such, these sales represent an irreversible shrinkage of the endowment set of the poor, which reduces their future entitlements even long after the famine has gone and good times returned.

Irreversible Effects via Non-demographic Routes: Long-term Nutritional Status

The irreversible nature of asset disposal is, of course, recognised by the poor themselves; that is after all precisely the reason why they try to postpone it for as long as possible. But there are also other irreversibilities that may not be so easily recognised. Recall the point made earlier, that the strategy of 'choosing to starve' – that is, allowing oneself to become undernourished in order to save productive assets, is usually considered to be 'non-erosive' in the coping strategy literature. But this line of thinking ignores the fact that acute undernutrition can cause irreversible damage to a person's physical and mental development, which can do nothing but harm to the viability of a household. A considerable body of evidence exists by now to support this contention.[8]

The long-term effects of undernutrition are more serious the earlier in life this is experienced. The problem can begin from the mother's womb. Women who suffer serious undernutrition during pregnancy tend to produce children who carry a life-long disadvantage in terms of both physical and mental health. The proportion of low birthweight babies tend to be higher among undernourished mothers; such babies are more likely to die sooner than normal weight babies, and even if they survive they tend to become physically stunted. Even

normal weight babies can become stunted if they are subjected to serious undernutrition early in life. Better nutrition in subsequent years may repair some of the damage, but a degree of permanent growth retardation generally cannot be avoided.

Severe stunting can cause a variety of problems all throughout life. During childhood, severely stunted children will be more susceptible to recurrent infections and also be more likely to suffer retardation in cognitive development. In adult life, they will have lower physical capacity to work, and greater susceptibility to morbidity and premature mortality in comparison with adults of normal height. Thus episodes of serious undernutrition during childhood (including the foetal stage) can have deleterious consequences for both physical well-being and earning capacity in adult life.

It should be noted that there is usually a threshold effect in all the consequences of undernutrition mentioned above. That is to say, these consequences generally follow only when the degree of undernutrition becomes severe, falling below what is called mild-to-moderate undernutrition. But that is precisely what is most likely to happen at times of famine. The poorest segment of the population already survive at a level of mild-to-moderate undernutrition; further loss of nutrition during crisis periods is very likely to push them quickly below the threshold. Thus even a modest degree of further undernutrition among young children and pregnant mothers can make all the difference in setting in motion an irreversible process of life-long disadvantage for the coming generation.

This way of looking at things suggests that the usual analysis of famine mortality may be deficient in a fundamental way. When a population is subjected to recurrent crises, the cumulative long-term effects of the resulting undernutrition will be reflected in the so-called 'normal' levels of morbidity and mortality. The estimation of crisis mortality as a deviation from normal mortality will then underestimate the true extent of the damage.[9] Equally, it will be a mistake in any long-term analysis to make too strong a dichotomy between changes in the incidence of crisis mortality and secular changes in 'normal' mortality.

This argument has obvious implications for the continuing debate over the European escape from hunger. We have noted earlier that most historians are now convinced that since crisis mortality constituted only a small proportion of total mortality in pre-industrial Europe, it was the reduction in normal mortality rather than elimination of crisis mortality that must have brought mortality down

permanently in the nineteenth century. As an explanation of the reduction in normal mortality, it has been suggested that a crucial part was played by secular improvement in the nutritional status of the population, which gave them greater immunity against infectious and other diseases (see, for example, McKeown, 1983; Fogel, 1992, 1994). Some doubts still exist regarding the validity of this explanation based on the nutrition–infection nexus;[10] but the point we are making here is that even if one accepts this explanation it may not be right to play down the importance of the conquest of famines. If, as we have argued, the cumulative effect of recurrent famines is to depress the so-called 'normal' level of nutritional status, then the conquest of famines may well have played a role in bringing about the observed secular improvement. How important that role was is an empirical matter on which judgement must be withheld at the moment, but the possibility that it might have been very significant cannot be ruled out. At the very least, it needs to be acknowledged that through its irreversible impact on long-term nutritional status famine can have hitherto unsuspected implications for secular changes in living standards.

Irreversible Effects via Non-demographic Routes: Breakdown of the Moral Economy

While the preceding discussion was concerned with irreversibilities specific to the individual, famine may also bring about irreversible changes in social institutions that may have long-term implications for living standards. Social anthropologists have shown that in most traditional societies there exists some form of moral economy through which people are able to tide over temporary crises, and the weaker members of the society are protected from extreme sufferings. The emerging literature on coping strategies has confirmed how this moral economy has come to the rescue during recent crises in Africa. But it has also been found that the institutional basis of the moral economy can rupture under severe strain, and once ruptured it may become an irreversible change endangering the livelihood of vulnerable groups.

One instance of such change has recently been noted among the Wodaabe pastoralists in central Niger (White, 1987; Hill, 1989). This community practises a system of pre-inheritance whereby the herd is held in a kind of collective trust for the next generation; a heifer would be assigned to a child at birth, and this would form the core of the offspring's own herd when the child grows into an adult. One consequence of this system of pre-inheritance is that the weaker members

cannot be forced out of the pastoral economy. Furthermore, since there is a certain shame involved in having poor relations in the administrative fraction, a redistributive mechanism works in the form of gifts, loans of milch cows, and *habba nai* loans (temporary gifts of a cow until she delivers three calves).

The foundations of this moral economy have been severely damaged, however, in the wake of the recent droughts. As a result of livestock reductions by both death and forced sale, the pre-inheritance system can no longer ensure that every adult would be able to start his or her own herd. Some of them migrate out of the pastoral economy, thus losing the traditional support base. Others become contract herders, in which case too the traditional support system no longer operates. In particular, they cease to have access to loans of animals under the traditional *habba nai* sharing system, since lenders fear infection from animals of outsiders. There are also other ways in which their livelihood security is endangered. For example, the new owners of a herd restrict their mobility so as to maintain contact with their stock; as a result, the herder can no longer seek out the best grazing lands.

Irreversible Consequences of Short-term Demographic Effect

We shall next consider an irreversibility caused by a temporary demographic effect of famine. In many underdeveloped societies, female mortality tends to be higher than male mortality in normal times. Interestingly, however, during times of famine, male mortality tends to rise proportionately more than female mortality. This has been found to be true for societies as diverse as Bangladesh of 1974 and Ireland of the 1840s (Dyson, 1991a, 1991b, 1992; Boyle and Ó Gráda, 1986).[11]

Several explanations of this phenomenon have been suggested in the literature. First, because of their greater store of body fat, women are more able to survive the strain of starvation than men. Second, men migrate more in search of work and food, and end up weaker, living in unhygienic congregations which make them more vulnerable to infections. Finally, the reproductive composition of the female population changes during the famine period because of a drop in the rate of conception that occurs with the onset of famine. The proportion of pregnant and lactating women falls below normal, and since it is this group of women who are most vulnerable to the stresses of undernutrition and infection, this compositional change exerts an offsetting effect on total female mortality.

One might suppose that there is an element of divine justice in all this. That men should suffer higher mortality at times of crisis may be seen as a small recompense for the injustice they habitually inflict on their womenfolk – so much so that women are often forced to suffer higher mortality than men in normal times despite their superior biology of survival. But the appearance is misleading; there is, alas, no justice in this. The temporary reversal of mortality differential in fact causes an irreversible setback in the long-term well-being of the women themselves. As men die, the proportion of female-headed households inevitably rises, a tendency that is further exacerbated by the fact that the rate of divorce tends to increase at times of famine. And there is considerable evidence from all over the world that female-headed households belong to the most disadvantaged segment of society (see Saldert, 1984; Gupta, 1986; Folbre, 1991). The point is simply that, in a society where women face severe constraints in their access to productive activity, any phenomenon that leaves more women to fend for themselves without at the same time removing those constraints cannot be to their advantage. But that is precisely the implication of proportionately higher male mortality at times of famine.

Long-term Effects on Fertility Behaviour

We noted earlier that famine does have a short-run effect on fertility – it almost invariably reduces fertility very early in the famine, but often this is partially offset by excess fertility after the famine ends, and the net effect turns out to be fairly negligible. The long-term effect has not been so well documented, however; the best one can do is to speculate. Thus Cain (1981) and Bongaarts and Cain (1982) speculate that since children are viewed by parents as old age insurance in a society where formal mechanisms of social insurance do not exist, an event such as famine that raises the risk of child mortality will discourage parents from exercising fertility control. To that extent the task of moving the society from a regime of natural fertility to one of controlled fertility would be that much harder in a famine-prone society than in a famine-free one.

Note that this argument does not hark back to the classical version of transition theory even though the effect on fertility is mediated through mortality in the first instance. For example, this is perfectly consistent with Caldwell's reformulation in terms of intergenerational resource flow. The insurance motive suggested by Bongaarts and Cain

implies that resources flow from the young to the old; and the role that mortality plays here is simply that by threatening this flow it banishes all thought of fertility regulation from the minds of the parents. Once we appreciate this general point that mortality may have a bearing on fertility behaviour even in a model based on intergenerational resource flow, the Bongaarts–Cain argument about the long-term effect on fertility can be generalised in a couple of ways.

First, the insurance motive need not be the only relevant consideration. In a regime of natural fertility, resources flow from the young to the old in a variety of ways, of which old-age insurance is only one. Even when the parents are in their prime, children play a crucial role in the household economy by augmenting household resources in a number of ways (Caldwell, 1983). Therefore, anything that elevates the risk of child mortality is a potential threat to the livelihood security of the household. Famine is precisely such a threat; that is why the transition to a regime of fertility control would be harder to achieve in a famine-prone society.

Second, it is not simply the elevated risk of child mortality that matters here; the risk of adult mortality is also a relevant consideration. We argued earlier that, through the long-term effects of childhood undernutrition, the recurrence of famine results in a generation of adults that has a lower physical capacity to work and is more susceptible to morbidity and mortality than would otherwise be the case. In a society in which adults are so handicapped, the need for resources flowing from the younger to the older generation cannot but assume greater significance – to cover the contingency of premature death or serious disability of the adult breadwinner. That too will make it harder to effect the transition to a regime of controlled fertility.

All these arguments imply that a famine-prone society is also very likely to be a high-fertility society. An example of how famines may strengthen the support for high fertility can be seen from Hill's (1989) analysis of the Bambara community of the western Sahel. For sound economic reasons the Bambara community tend to prefer very large residential units. But, as Hill notes, this institution inevitably implies strong social support for high fertility and, since this institution has been found to become more deeply entrenched at times of crisis (Toulmin, 1986), it follows that famines and other crises would help perpetuate the regime of high fertility. So far, an open land frontier has spared the Bambara people from any adverse effect of high fertility, but the eventual closing of the frontier is bound to make this effect felt sooner or later.

This long-term effect on fertility, as well as the irreversibilities discussed earlier, are some of the major channels through which famines are likely to exert a deleterious effect on the long-term evolution of living standards.

The Irish Famine: A Case of Benign Irreversibility?

The irreversibilities I have considered so far are all of the malignant kind – they all tend to depress the long-term living standards of some group or other. For the sake of completeness, we ought to consider whether there can exist any benign irreversibility. Some very recent re-examinations of the Irish famine seems to suggest that there might be one. In the preceding section, I referred to the revisionist view that the Irish famine did not matter all that much, at least as far as mass migration was concerned. In a counter-revisionist analysis, O'Rourke (1991) has recently concluded that the famine did matter after all. He used a computable general equilibrium model to test the revisionist hypothesis that by reducing domestic demand for labour the ongoing changes in relative commodity prices would have induced migration in any case, even in the absence of famine. His estimates show that while the change in relative prices would have shifted production from highly labour-intensive cereal to less labour-intensive livestock, the production of a labour-intensive potato crop would have increased because of various intersectoral linkages between livestock and potatoes. As a result, total demand for labour would not have declined much – at any rate not enough to induce the massive migration that followed.

O'Rourke goes on to conclude that the famine acted as a crucial catalyst for the migration, by shocking the Irish labour market into a beneficial integration with the international labour market. Since the international wage rates – especially those in Britain and America – were considerably higher than those in Ireland, once the shock integration occurred it set in motion an irreversible trend of outmigration. In the process, not only did the migrants find a better life abroad, those staying at home also enjoyed higher real wages as migration brought the domestic wage level closer to the international one.

While this case of benign irreversibility is a matter of considerable historical interest, it can give little comfort to the contemporary developing world, for whom the scope for mass international migration is utterly restricted. The malignant irreversibilities discussed earlier are much more relevant for them, which means that the effects of

famines on the long-term evolution of their living standards can hardly be anything other than harmful.

SUMMARY AND CONCLUSION

We have attempted in this chapter to gain an understanding of the possible long-term effects of famine on endemic poverty. As an expositional device, we have classified these effects under four hypotheses – one Malthusian and three post-Malthusian. In the Malthusian perspective, famine is seen as providing the survivors with an escape valve from extreme poverty, giving them an opportunity to raise their living standards beyond the level of bare biological survival. This perspective, however, does not take sufficient cognisance of the long-term effects of famine that operate through various economic and demographic channels. These long-term issues are considered more fully by the post- Malthusian hypotheses.

One such hypothesis would see famine as the principal perpetuator of poverty in the long run, rather than as an escape from it. This notion is based on two specific views on the economic and demographic history of the Western world. One of them holds that famines were chiefly responsible for the high level of mortality in pre-industrial Europe; and the other – the so-called classical version of the demographic transition theory – suggests that it was the high level of mortality that accounted for the high level of fertility that obtained. The combination of these two views implies that famines were ultimately responsible for keeping fertility high and thus dissipating any productivity gains; hence the notion that the long-term effect of famine was to condemn a society to secular stagnation.

Recent research has shown, however, that there are serious problems with both the propositions on which the preceding hypothesis is based. Famine is not now seen as being responsible for keeping mortality high in the pre-industrial world, nor is high mortality seen to be the main factor behind high fertility. These revisionist views, coupled with newly-emerging evidence on the demographic impacts of past and contemporary famines, would seem to entail the very opposite hypothesis, that famine does not matter much in the long run.

But this rather comforting view is based mainly on the direct demographic consequences of famine. A deeper analysis shows that short-run demographic and non-demographic effects of famine may have some irreversible consequences for individuals, families, and society. These

irreversibilities pertain to the endowment set of the household, the long-term nutritional status of the individual, the structure of the family, and the structure of the moral economy. Most of these irreversibilities are seen as exerting a deleterious influence on the long-term living standards of the people. This tendency is likely to be aggravated further by the long-term effect of famine on fertility behaviour, since a famine-prone society is also likely to be a high-fertility society.

Notes

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1. It should be stressed that this hypothesis follows more clearly from the Malthus of the *First Essay*. His later views were much more nuanced than is allowed for by the hypothesis as presented here.
2. In the same sense that preventive checks are supposed to have a beneficial effect, the only difference being that while preventive checks operate by standing in the way of more people being born, famine operates by eliminating some of those already born. Whatever may be the ethical or emotional differences between the two modes of operation, their effects on the size of the population, and hence on the balance between people and resources, are essentially similar.
3. In both the Irish famine of the 1940s and the Bangladesh famine of 1974, the birth rate dropped by nearly one-third (Boyle and Ó Gráda, 1986; Chen and Chowdhury, 1977).
4. This conclusion pertains to the short-run effect of famine on fertility. The long-term effect can be quite different; its discussion is postponed until a later section.
5. Michelle McAlpin (1983a) has advanced this hypothesis in the context of South Asian famines of the colonial era.
6. Schofield (1983) has shown that the classical theory did indeed hold in England up to about the middle of the eighteenth century but not thereafter.
7. See Davies (1993) for further discussion on this point.
8. See, for example, Srinivasan, 1983; Dasgupta and Ray, 1990; Gopalan, 1992; Osmani, 1992; James and Shetty, 1994; Fogel, 1994; and Steckel, 1995.
9. In a recent re-examination of the Bengal famine of 1943, Dyson and Maharatna (1991) have claimed that Sen's (1981) earlier analysis may have exaggerated mortality by showing a tail of elevated mortality for

several years after the famine, whereas their own (presumably superior) data do not show any such tail. However, an implication of our argument regarding the long-term effect of undernutrition is that the non-existence of the tail does not necessarily ensure that a delayed mortality effect did not exist.

10. Livi-Bacci (1983) argues, for instance, that since the life expectancy of British aristocrats was not much different from that of the general public before the eighteenth century, it is not clear that undernutrition was the principal factor behind excessive death caused by infections and epidemics.
11. An earlier study of Bangladesh by Chen and Chowdhury (1977) had created the opposite impression. But Dyson (1992) clarifies that, among the adult population, male mortality did indeed increase proportionately more than female mortality; the reverse was true only for children.

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Part III
Current Threats to Food Security

9 Aid and Drought: Responding to the Human and Economic Consequences of Natural Disasters

Edward Clay

The theme of this volume is a world *without* famine: new approaches to aid and development. In this chapter and the next chapter, by Ibrahim Elbadawi, an attempt is made to relate this theme to the more mainstream policy discourses on development. In particular, we want to consider both the short-term responses to crisis and mitigation measures as well as the medium- and longer-term context which continues to be that of structural adjustment and economic reform. This is done by focusing on drought, which remains the major natural hazard, especially to the peoples of Sub-Saharan Africa (SSA) and their economies. This is because we believe that the human and economic damage caused by drought can be considerably reduced, if not entirely prevented. However, that will require from time to time substantially greater responses than previous efforts by the international community. It is argued that changes in aid modalities are also required, so that available resources are mobilised effectively and used to address both the short- and longer-term consequences of drought.

This chapter concentrates, with no apology, on the economic developmental consequences of drought. There has been a considerable, even unbalanced, preoccupation with the immediate, direct, visible and telecommunicable impacts of drought on people, animals and the physical environment. But, drawing on recent studies by the Overseas Development Institute, I suggest a more complex perspective on the interaction of drought shocks with the economy in which droughts can have large economic impacts.[1] I argue that by addressing the economic consequences of drought effectively, the humanitarian problem becomes better-defined and more manageable.

The chapter is in four parts:

(i) A short restatement of the facts of Africa's vulnerability to drought;
(ii) A theoretical perspective that focuses on the changing economic developmental dimension of that vulnerability to drought;
(iii) A listing of factors which shape the economic impacts of drought; and
(iv) A brief examination of short-run responses to a drought crisis, and drought mitigation measures, highlighting the unsatisfactory aspects of existing aid modalities.

The process of economic decline and structural adjustment problems have made many SSA economies potentially more vulnerable to any internal or external 'shocks', including drought. The further difficult issue addressed by Elbadawi is what can be done in the context of structural adjustment to mitigate the effects of drought as an economic shock.

DROUGHT AND THE ECONOMY IN SUB-SAHARAN AFRICA

Africa's Vulnerability to Drought

Droughts are frequent and severe in many African countries as a result of extreme variability of rainfall in the extensive arid and semi-arid regions.[2] Widely quoted estimates suggest that at least 60 per cent of SSA is vulnerable to drought, and perhaps 30 per cent is highly vulnerable.[3] This high degree of vulnerability stems from several widely recognised structural features of many African economies, including:

(i) The high incidence and depth of poverty in these countries. In the face of such chronic food insecurity, the short-term effects of drought on farm production, incomes, and/or consumer goods prices can easily overwhelm traditional coping mechanisms, bringing about a 'crisis' situation;
(ii) The highly skewed patterns of asset distribution including land, livestock, forest resources, water (rights) and others;
(iii) The high proportion of employment, incomes, foreign-exchange earnings, and GDP accounted for by agriculture and agro-

related industries and services. Agricultural output is closely correlated with rainfall, and sudden shortfalls in agricultural incomes have multiplier effects on the remainder of the economy through reduced purchases of consumer goods and services;

(iv) The very limited extent of drought-proofing of the region's agricultural and, indeed, water-intensive systems;

(v) The landlocked position of many countries and the remaining weakness in physical infrastructure which inhibit flexible responses with the onset of drought; and

(vi) The high covariance of cereals production among countries in Sahelian and Southern African regions which reduces the scope for bilateral or regional solutions to transitory food shortfalls.

Environmental Diversity and Drought

Environmental differences among countries are an obvious aspect of the interaction between drought and economic performance. Vulnerability to drought cannot be viewed merely as approximately synonymous with aridity and, in agricultural terms, the problems of arid, agriculturally low-potential areas. More developed coping mechanisms in areas more prone to drought imply that drought may, in fact, have a larger economic impact in less drought-prone regions. Systems exposed to high risk of drought adapt to these marginal conditions through investment and water- resource management practices. However, systems take some time to readapt to changing risk of drought shocks. This view of adaptation introduces the possibility of non-linearities, whereby only extreme, more improbable events, such as the 1991–2 Southern African Drought, involve significant economy-wide impacts.

The current status of research on climatic change indicates that certain regions of Africa have displayed differing climatic trends over the period since decolonisation; that is, broadly since the early 1960s. The Sahel has experienced a significant decline in average rainfall levels. In contrast, for over a century, the south-east African region of austral summer rainfall has experienced a quasi-cycle of 19–21 years, of one relatively wet and one relatively drier decade. The East African region is not affected by either trends or cyclical patterns in rainfall regime (Hulme, 1992). These distinct regional differences have potential implications for agriculture, water management more generally and the possible economic consequences of drought. For example, the quasi-cycles of south-eastern Africa pose especially difficult

problems of estimating drought risk for hazard-management and investment decisions.

Economic Structure and Drought

Inter-sectoral linkages First, the effects of a drought shock will be amplified through the economy to the extent that the agricultural sector draws on intermediate goods and inputs from the non-agricultural sector and, similarly, to the extent that the non-agricultural sector is dependent on raw materials from the agricultural sector. Second, higher levels of products and services from the non-agricultural sector in the final expenditure of the agricultural sector also imply larger second-round effects of drought shocks on GDP.

Intensity of water use in the economy Drought is primarily seen in a SSA context as a problem of agriculture and animal husbandry. However, drought as a hydrological phenomenon – with variability in rainfall affecting intertemporal storage of water in natural and artificial surface and sub-surface storage systems as well as surface flows – may have a wider impact, depending on the water intensity of other sectors. Dynamically, the balance between growing demand for water from a wide range of users, and supply that is dependent on investment, maintenance and management, including the water pricing regime, could imply considerable intercountry and intracountry differences in vulnerability. These may be affected by economic decline, structural adjustment programmes (SAPs), and public and private investment.

Role of financial systems The level of evolution of financial systems is not linked in any simple linear way to levels of GDP. However, the size and structure of the private financial sector, involving banks, other intermediaries and elements of a private capital market, will have potentially significant implications for the way an economy adjusts to drought, as with other economic shocks and the response options available to public authorities.

Publicly managed productive and distribution systems At independence, most African economies inherited public enterprises for agricultural marketing, electricity and water supply, waste disposal and transport. Public institutions are also largely responsible for formal human resource development and social welfare provision through

education, health and other social services. Subsequently, economic reforms and the growth of both informal and regulated sectors have been further modified, sometimes reducing the role of the public sector in production and distribution of goods, and provision of public services. In consequence, the implications of a drought shock will interact differentially both between and within countries over time, depending on economic structure.

Public revenue and expenditure On the revenue side, a drought shock can be expected to have a negative impact through a decline in incomes and employment. The revenue of utilities will be affected adversely by the income impacts of the levels of use as well as increased non-payment. Revenues linked to export earnings are also likely to decline. On the expenditure side, governments may be confronted by increased relief and social welfare expenditure, health and water expenditure, consumption-related subsidies on food distribution, and the logistical costs of drought-related imports.

There is insufficient appreciation of these complexities. Instead, the conventional view of the impact of drought and other exogenous shocks is that the lowest-income economies are also the most vulnerable. Such economies are characterised by high shares of agriculture in GDP, a high degree of self-provisioning by households and, geographically, relatively large arid zones which, it is held, together increase their vulnerability to drought. This view implicitly entails a negative correlation between the impact of drought and the level of economic development, reflected in levels of GDP per capita or other more sophisticated indices.

This chapter hypothesises a more complex relationship between the level of economic development and the impact of drought. In the early stages of development an economy may in fact become more vulnerable to drought and therefore more severely affected by drought shocks. As an economy develops progressively, with related growth in financial and commodity markets, an expansion of the monetised consumption base, and, in particular, an expansion of the non-agricultural sectors, its vulnerability to drought shocks increases initially. This greater vulnerability is in part attributable to diversification into the manufacture of technologically simple products that utilise domestically-produced raw materials. The multiplier effects of the expenditure of agricultural incomes on other domestic products also increase, although this should not be over- emphasised in the SSA context. Then, in later stages of development, the high capitalisation

of water supply and other mechanisms come into play, effectively insulating an economy against the impact of drought.

DROUGHT-VULNERABLE ECONOMIES AS COMPLEX ADAPTIVE SYSTEMS

Complexity theory as recently formulated by physicists and biological scientists studying the behaviour of *complex adaptive systems* (for example, Gell-Mann, 1994; Clark *et al.*, 1995) provides a useful framework for thinking about the problem of drought, which has physical, environmental, social and economic dimensions. This perspective also provides a link to, for example, Professor Ó Gráda's analysis (in chapter 3 of this volume) of famine as a historical phenomenon, and the widespread professional interest in coping strategies and adaptive behaviour on the part of people confronted by environmental variability.

At a micro level, people living in drought-vulnerable environments (and indeed, for example, in Bangladesh, those confronted with other risks such as severe floods) represent complex adaptive systems. That very complexity, which is characterised in terms of their many economic activities is closely adapted to a particular physical environment. In terms of their coping strategies, it enables them to absorb the effects of all but the most extreme environmental shocks. However, historically, these households, communities, villages, clans, tribes were integrated into relatively simple wider economic systems. Indeed, the phenomenon of dualism in African economies implied very little intersectoral integration within economies in the early phase of development.

With development and economic growth, the processes of specialisation, capitalisation, trade and financial transactions typically leads to a less complex basic micro production and consumption unit. However, there is greater complexity in the wider economy, characterised quantitatively in terms of intersectoral or interindustrial input – output linkages.

This shift in the locus of complexity has potentially profound implications for the vulnerability of people and the economy. The growing complexity of the economy means that the effects of drought and other shocks are far more widely transmitted, but are also ultimately dampened as the directly vulnerable elements of the economy decline in relative importance. But economies that are involved in, but have not yet achieved, that transition (as, for example, the case of Zambia and Zimbabwe in 1991–2) may economically be even more

vulnerable (Benson, 1996). For such countries the wider economic consequences of a drought are as important to address as the direct impacts. That implies a different balance to the policy agenda. This different balance, as discussed in a later section of this chapter, implies a range of both short-term and long-term measures in addition to, and possibly instead of, the conventional combination of directly targeted, food-aided famine relief and mitigation measures.

The loss of effective complexity at a micro level is a consequence of development. This involves some degree of specialisation, the decline of self-provisioning, and fuller integration into markets and financial systems that finance consumption and production, physical and human capital investment and trade. Rural people who do not participate in this process are typically condemned to poverty and marginalisation. The increased complexity of the wider economy usually involves a higher proportion of traded foodstuffs, even in rural consumption. Intersectoral financial transfer mechanisms develop, (such as, for example, post office savings banks). Household studies show families straddling sectors and including both urban and rural members. This increased complexity offers other possibilities for intervention indirectly through markets. Interventions should sustain rather than disrupt an increasingly complex economy if it is to continue on a developmental trajectory.[4]

Before proceeding to discuss that policy agenda, a brief consideration is perhaps appropriate of how this analysis of drought relates to other chapters in this volume. In pre-famine Ireland the process of technical change involved a dramatic simplification of the basic microeconomic family farming system. Increasing numbers of these families became ever more dependent on a single staple, the potato. That process increased vulnerability. But, as we understand it from the work of economic historians, the colonial economy failed to diversify sufficiently quickly in terms of the growth of other sectors, intersectoral linkages and financial flows to provide compensating complexity.

Because of pervasive structural poverty in South Asia, as well as in SSA, a high proportion of the population is extremely vulnerable to natural disasters. In South Asia, massive continuing rural works programmes have become part of the rural economy. Combined with short-term relief measures, these limit the impact of natural disasters on the rural poor. Thus India has avoided large-scale famine since 1942–3 and Bangladesh since 1974–5. These dates also confirm the now widespread view that it is almost always war or severe politico-economic disruption that leads to famine (see Box 9.1).

Box 9.1 War, socioeconomic disruption and famine in Bangladesh

War and severe internal politico-economic disruption result in the disarticulation of the economy and a temporary loss of complexity. This loss of complexity was a major factor precipitating famine in East Bengal, later Bangladesh. In 1942–3 the British colonial authorities deliberately disrupted boat transport to deny the rivers to a possible Japanese invasion force. However, the whole grain trade depended heavily on water-borne transport. In addition, the war had cut off Calcutta and the jute-growing peasantry of Bengal from normal sources of additional grain supply – namely, the rice-bowl of Burma's Irrawaddy river valley. As Khan (1983) describes in his account of the Great Bengal Famine seen from the perspective of a young District Officer, it was this disarticulation of the economy that intensified the initial food crisis dramatically.

In the early 1970s the same economy, now renamed Bangladesh, had been severely disarticulated by war – a loss of transport, infrastructure, marketing channels and the human resources to sustain the system. Where physical insecurity continued, the process of reintegration was slow. In 1974, in a crisis situation, the government adopted (but ineffectively) quasi-collectivist measures. There was a corrupt rationing system for food, especially in rural areas, and for fertiliser distribution. Local political and economic influences, rather than needs, determined distribution of food and scarce inputs. The state engaged in forced procurement of grains to meet its essential priorities while prices in the open market soared. The main food donor, the USA, was also uncooperative, again limiting import availability during an international grain crisis. Crisis became famine. Within a year the government fell victim to a bloody coup.

In the subsequent twenty years the population of Bangladesh has grown from 70 million to almost 120 million and the absolute number of poor people has increased. But there have been massive responses by all parties to every subsequent natural disaster, thus preventing crisis from degenerating into famine. The reintegration of the economy also helps to ensure that, in a crisis, poorly targeted, leaky interventions, the food-for-work and vulnerable group feeding programmes, have a wide impact through the system (Clay, 1985). Famine has been contained, but not conquered.

The implication is that short-term interventions should build on, complement and sustain rather than displace the complex systems that are in place. For the longer term, interventions should promote rather than inhibit the processes of economic transformation that imply increased intersectoral complexity.

How is that to be achieved? There is already a considerable body of writing on the microeconomic and social dimensions of complexity in the coping strategies of vulnerable people. The common conclusions for policy are that intervention should be sensitive to, or reinforce these strategies. A complementary strategy is also required for addressing the wider financial and economic dimensions of drought. Recognition of some of the ways in which drought typically has an impact on the wider economy helps to clarify the policy agenda for governments and the international community.

ECONOMIC IMPACTS OF DROUGHT AND FACTORS THAT SHAPE THEM

Several factors interact with variability of rainfall, in turn partly determining the extent and intensity of a drought shock.

Development and economic sensitivity There are both theoretical grounds and some empirical evidence to suggest that a more complex economy, such as that of Zimbabwe, is likely to suffer more severe economic impacts from drought shock than a simple economy such as that of Ethiopia. This implies that the development process in a country such as Ethiopia will increase the economy's vulnerability to drought.

Income distribution The ways in which inequality in incomes and asset distribution influences the economic impact of drought are not straightforward. What seems plausible is that drought may exacerbate income inequality, undermining efforts to achieve equitable and sustainable development.

Prevailing economic conditions A weakened economy increases the impact of drought, as illustrated by a comparison of the situation in 1984 and the 1993 Kenyan crisis.

Management of water resources The impact of drought on particular activities may be intensified if water resources have been poorly managed in the past, so that 'stocks' of water drawn upon for those activities are already low, as in the case of Lake Kariba in 1992.

International commodity price movements Most SSA countries are dependent on two or three commodities for a major part of their export earnings and are price-takers for these commodities. Commodity price movements consequently play a significant role in both offsetting and amplifying the impact of drought in some economies.

The structure of the agricultural sector In Zimbabwe, the shift since 1980 in maize and cotton production from the large-scale commercial sector to the communal sector, which is more heavily concentrated in marginal areas, has probably made agriculture more sensitive to variability in rainfall.

The existing policy framework Where large areas of the formal economy are highly regulated, a drought may have relatively little impact because of the existing constraints, as, for example, on private investment and imports in Ethiopia under the Dergue.

The structure of financial sectors and government financial policy These may also be important factors shaping the impact of a drought shock. For example, Zimbabwe's well-developed formal financial system was drawn upon to meet the increased budgetary deficit of the central government arising as a result of the 1991–2 drought, which crowded out private-sector borrowing as well as contributing to the sustaining of very high interest rates. The transferral of remittances from urban to rural people was also facilitated by the well-articulated system of small savings. This mitigated the impact of the drought on rural areas, but effectively spread its impact.

Drought and trade Substantial increases are likely in cereal imports during and in the aftermath of severe drought years, thus constraining other imports. Exports are also likely to be adversely affected.

External debt Severe drought events have resulted almost without exception in increased debt stocks. These increases have largely been intended to meet increased external financing gaps and have mainly been in the form of long-term public and publicly-guaranteed debt. Increased debt has longer-term implications for levels of debt servicing, and thus for the availability of foreign exchange to finance capital imports, which may be vital to sustained development.

Longer-term impact of drought on economic performance Drought shocks may be a long-term impediment to growth in certain economies. However, the impact of drought is mitigated to the extent that lower growth during periods of drought is offset by increased growth during the recovery period. Nevertheless, alternative scenarios for considering losses in GDP occurring as a result of drought shocks suggest that, because of loss of output in the drought-related recession, drought may be a long-term impediment to growth (Benson and Clay, 1994a). The long-term impact may be even greater than is indicated by these results, to the extent that droughts distort investment portfolios and restrict rates of capital accumulation. Any such effects may be exacerbated if economic development objectives are set aside for the duration of the drought, thus weakening the links between relief and development as well as increasing the longer-term costs. There are therefore strong arguments for a concerted effort on the part of governments, supported by the international community, to address drought as an economic problem as well as a humanitarian or food security issue.

SUPPORTING DROUGHT CRISIS MANAGEMENT AND MITIGATION MEASURES

Economic and Humanitarian Concerns and Other Influences on Donor Actions

This chapter has examined the ways in which economic structures and resource endowments interact in determining the impacts of drought shocks. The schema suggested is considered to have relevance to the policies of the international financial institutions and bilateral donor agencies in supporting drought crisis management and mitigation measures in Africa.

Droughts potentially have substantial economy-wide impacts in addition to the visible effects on the rural economy and people. The direct effects of the drought shock on the rural economy and water-intensive activities have severe and immediate negative balance-of-payments and budgetary implications. Consequent recessionary pressures intensify the latter. From an international perspective, the obvious issue is whether the donor community is likely to respond in ways that mitigate the immediate impact significantly. But there are additional concerns. Is the response likely also to minimise the

longer-term negative effects that result, for example, from increased official indebtedness and deferred or cancelled development activity? Are responses sensitive to supporting rather than undermining the complexities of the economy?

In terms of these considerations, priority should be given to the provision of substantial additional support to cover the foreign-exchange costs of the drought shock and to reduce pressures on the public finances. Because drought is a crisis whose full dimensions are difficult to anticipate, rapid disbursement of assistance is also required. This reduces the need for avoidable crisis responses on the part of governments, such as financing commercial food imports with costly supplier credits, or cutting back developmental, including social development, expenditure in order to finance drought relief.

Of course, the international community does respond, often massively, to natural disasters. The likely nature of the international response to a drought reflects the existing aid instruments. But the way these are used is also shaped by political considerations that are now conventionally labelled as questions of good governance as well as the current economic environment in the affected country or region. As to whether international responses are adequate and effective, evidence is available from recent experience. Is there, then, substantial scope for more effective international responses to drought, viewed as an economic shock as well as a humanitarian crisis? And, more practically, what could be achieved in the current international environment? It would be naive to expect a radical reconstruction of aid as a massive increase in assistance flows. These are the questions to bear in mind in reviewing aid instruments and practice.

In considering donor policies, 'governance' is a factor to be taken into account. Donors are reluctant to assist a government when they are uncertain of its commitment or capacity to manage a crisis. They are then likely to concentrate indirect aid on the visible human impacts, with limited concern for less immediate developmental implications.

The current economic environment This is a further consideration. A structural adjustment programme is being implemented, in many African economies. This is, to borrow Sir Hans Singer's phrase to describe food aid policy, both a challenge and an opportunity. Structural adjustment involves a highly constrained policy framework of objectives and targets within which governments are expected to respond to a crisis. However, a SAP implies that donors, together with the government, are closely monitoring the economic and finan-

cial situation on a short-term basis. The existence of a SAP may also imply that external resources are potentially more readily available to counteract the negative economic consequences of a drought shock.

The southern African drought 1991–2 Concrete examples are required to make all these issues more explicit. The international response to the 1991–2 drought in southern Africa was the largest such co-ordinated relief effort following a natural disaster. It was widely regarded as a success, in that famine was prevented and, except in war-affected Mozambique, drought-related distress was at most localised and short-lived. As such, it has been evaluated extensively. This experience therefore offers important and documented lessons on ways in which international assistance can be effective, but it also exposed serious weaknesses in the existing set of emergency aid modalities, particularly from a developmental perspective. There is evidence of serious efforts to internalise some of these lessons (see, for example, SADC, 1993; World Bank, 1995). The international community and its constituent parts are also complex adaptive systems. It is nevertheless useful to present, perhaps in a stark form, some of the less positive lessons of 1992–3 as these relate to attempts to combat the effects of the most recent, but less severe, drought in southern Africa and to prepare for future emergencies.

ADDITIONAL RESOURCES FOR DROUGHT CRISIS MANAGEMENT

The first issue to consider is whether the collective effort involving all these instruments and donors is commensurate with the scale of the financial problem created by a crisis. Unless there is an adequate additional response to a drought in these terms, a heavy burden is imposed on both the public and private sectors of an affected economy which crowds out other expenditure with developmental costs.

A good test case is the 'successful response' in southern Africa in 1992 and 1993. The overall costs of relief operations in the region amounted to at least US$4 billion. The foreign-exchange costs of food imports and logistics were around US$1.6bn, excluding South Africa. In addition, countries suffered loss of export earnings and governments loss of revenue from the drought-related recession. However, the increase in total net aid disbursements during 1992 and 1993 over 1990 and 1991, again excluding South Africa, was slightly less

than US$1.5bn. Substantial increases in aid were already scheduled for Zambia and Zimbabwe to support structural adjustment. This suggests that the additional international resources, including all the food aid and emergency relief mobilised in response to the crisis, accounted for at most a third of the direct costs of the drought relief programme, without making any compensating allowance for the loss of export earnings.

The nominal level of drought-related commitments on the part of donors was substantially higher than the actual increase in aid disbursements during 1992 and 1993. For example, the UK Overseas Development Administration committed £49m to the southern African drought, but the increase in aid disbursement to the region in 1992–3 was less than £30m. Close analysis suggests that not all commitments are genuinely additional, but involve 'repackaging' of aid. But there are also problems of aid that has already been committed encountering disbursement problems in a crisis.

The greater part of the drought response had to be financed by the affected countries reallocating expenditure within budgets already constrained by adjustment. Overall, a substantially greater response would have contributed to reducing the negative developmental effects of the drought. In addition, at least a third of the international response involved credits, thus increasing the official debt. But part of the problem lies in the inappropriateness and inflexibilities of the existing aid modalities.

APPROPRIATE INSTRUMENTS?

The selection of instruments that are available to a donor should be sensitive to the structure and resource endowments of the recipient economy. The current economic policy environment also impinges, as do broader questions of *governance*. This latter point may be highlighted by contrasting, for example, the situation in 1992 in Zambia and Zimbabwe, where there were relatively effective governments with a relatively broad mandate, with that of Malawi and Mozambique, where there were problems of ineffective government and conflict-related displaced populations.

Taking into account the difference of economic structure and the instruments available, a broad hierarchy of instruments in terms of their effectiveness is indicated. First let us consider intermediate, more complex economies such as Zambia or Zimbabwe.

Financial aid for balance-of-payments and budgetary support The provision at low cost of *additional financial aid* to provide balance-of-payments and budgetary support should have the highest priority. This aid should also be rapidly disbursed in order to minimise the negative impacts of the drought shock on government foreign-exchange reserves through additional food imports and reduced export revenues. Rapid disbursement is also important in minimising additional internal funding requirements. In the context of a structural adjustment programme, flexibility in the use of funds already programmed is important in order to avoid a drop in disbursement. Flexibility in terms of modifying SAP targets may also be required. The main sources of such aid are the international financial institutions and bilateral agencies, such as those of Germany, the Nordic States, the Netherlands and the UK.

A substantial part of the financial assistance committed to southern Africa in 1992 represented additional or modified World Bank (IDA) credits, some US$350–400m provided as Emergency Recovery Loans. These are relatively quick to commit but have complex disbursement procedures, mainly for reasons of financial control. Some components of loans committed in April 1992 had not been disbursed two years later.

The IMF has a number of facilities available for addressing a range of balance-of-payments difficulties. In practice, fresh arrangements drawing on these facilities were not made in 1992 because of the relatively high-cost terms and the problems of concluding an agreement in response to immediate financial requirements. However, Zimbabwe, for example, did draw on an already negotiated structural adjustment arrangement to finance part of its increased foreign-exchange gap.

Bilateral donors such as the UK, the Netherlands and the Nordic countries are able to be more flexible. The largest component of the Overseas Development Administration's response in 1992–3 was a sequence of immediately disbursible grants amounting to £20m sterling during April–June 1992 to Zambia and Zimbabwe, towards the direct import costs of the drought. But, in practice, individual bilateral agencies cannot make more than a marginal contribution to a large regional crisis.

Programme food aid for sale on local markets to generate counterpart funds If it can be committed and delivered rapidly, programme food aid is almost as effective as financial assistance. The main questions

are whether it will be timely, cost-effective or appropriate in terms of providing the type of food that can be absorbed readily in the recipient-country market. Where internal budgetary support is intended, counterpart funds arrangements may require special attention. In a European Union (EU) or US context, this is a major instrument for balance-of-payments and budgetary support, but not in the case of smaller food aid donors such as Ireland or the UK.

The major food aid donor is the USA. It was also the main provider to southern Africa in 1992. However, US food aid and credits partly depend on the accidents of surplus availability. So, although there was the possibility in late 1994 and early 1995 of a crisis of similar magnitude to that of 1992, the commodities would not have been available for a comparable response.

US programme aid is normally available on an FOB basis and on credit terms. In 1992, other donors had to be manoeuvred into paying some of the shipping costs of US grain. US food aid is also bound up with protectionist legislation, including a requirement that 75 per cent of commodities be shipped in US registered vessels, which are typically twice as expensive as other flag carriers, and the tying limits delivery options. However, the US does meet the extra financial costs of this restriction to US vessels. Thus, without even exploring the resourcing and administrative constraints of other donors such as Canada and the EU which lead to response lags of at least 6–7 months, it is clear that there are sufficient grounds for regarding food aid as being second-best.

Bilateral project aid including technical co-operation and funding of local costs and import components Again, it is essential to sustain the flow of funds, thereby maintaining activities throughout the drought shock. There is scope for 'quick action' projects or accelerated implementation. Unfortunately the design of projects does not normally take into account the risk of a serious drought; this has been true even of many agricultural projects in drought-vulnerable areas. The problem of sustaining project disbursements is probably also linked to lack of local funds where the drought relief programmes are crowding out other expenditure.

Emergency financial aid This is provided for the direct relief of affected populations through non-governmental organisations, the United Nations, and possibly government agencies. *Emergency food aid* is provided for direct relief, again usually indirectly through NGOs

or the UN. Where there is good governance, there is a lower priority for either emergency food or emergency financial aid, both of which are relatively inflexible instruments since they are tied to direct relief. Doubtless there will be scope for NGO activity and special UN programmes. However, emergency aid is costly to deliver and raises all sorts of targeting issues. Nor does such direct aid address the economy-wide aspects of the shock.

In simple, least-developed economies, such as the land-locked Sahelian countries and Ethiopia, the impacts are likely to be more heavily concentrated in the rural sector and to have less of a general recessionary nature. Consequently, more targeted interventions are needed. The appropriate response of the international community must also depend strongly on local governance. If there is an effective government, in which the donors have confidence, then general support with financial or programme food aid may still be an appropriate response. Targeted emergency aid will be more effective in this context. Where government is less effective or even non-therapeutic, the use of indirect channels is more appropriate. Examples are Malawi and Mozambique in 1992–3. This has been the situation in some of the Sahelian economies and the Horn of Africa since the mid-1980s.

There is insufficient awareness of the inflexibility of emergency aid once it is committed. The potential inflexibilities can again be illustrated with examples from 1992–3. By June 1993 Malawi had a surplus of yellow maize because of excess donor pledges; some grain was left to rot in the coastal ports. The European Commission agreed in May 1992 to provide emergency food aid to Zimbabwe, but indirectly and in parallel through several European NGOs. Most of the grain arrived in 1993, after the drought had broken. The government and NGOs had to improvise a new emergency school feeding programme during the period of dramatic agricultural recovery, to absorb the EU and other relief aid.

Advocacy is, in effect, a policy instrument for NGOs and bilateral donors at the level of the EU for European Member States, or, more generally, the boards of international financial institutions (IFIs). The World Bank and the IMF can also influence their members' actions. NGOs can have a powerful influence on the responses of bilateral donors and the European Commission. To what extent are they directing their efforts primarily to mobilising resources for the direct involvement of the NGO sector, including their local partners? NGOs

have done much to demonstrate the importance of supporting micro complexity – the coping strategies of vulnerable people. However, many who work directly with the very poor and marginal may be less instinctively supportive of a response that builds on the complexity of the emerging economy of truckers and private traders, and indirect intervention through markets and prices and the cost of credit.

Bilateral donors can play an important role in the context of international financial institutions and their decisions. One aspect of that influence concerns the country policy framework that may be in place. Another issue is that of the costs and flexibility of the operational modalities and procedures of the IFI. In turn, strong support from the IFIs mobilises bilateral assistance. It may also facilitate the access of the governments of affected countries to short-term sources of balance-of-payments finance.

SUPPORT FOR DROUGHT MITIGATION MEASURES

To consider the question of support for drought mitigation measures in any detail is beyond the scope of this chapter. For completeness, however, the following check-list reflects much recent analysis.

In supporting mitigation measures in drought-vulnerable countries, the most important instruments include: project and Technical Cooperation funds; SAP and other economic frameworks; and more general research-orientated funding. Nevertheless, many issues concerning appropriate drought mitigation measures might be considered, including the following areas:

Understanding of drought processes There is a need to encourage links between technical, scientific and social science research.

Early warning systems How these are organised depends on issues of governance as well as differences of economic structure and resource endowments.

Drought-proofing investments Potentially, water systems are increasingly vulnerable. This issue cannot be dissociated from system management, in particular with regard to water.

Agricultural impacts of drought These are context-specific and concern minimum essential foodstocks at a national and decentralised

level; diversification of crops; varietal work; and irrigation and water-management issues.

Drought-preparedness planning Recent experience (see, for example, SADC, 1993) suggests that:

(i) Post-disaster recovery, including seed supply and livestock rehabilitation, is generally poorly handled;
(ii) Emergency water-supply interventions are widely ineffective and not properly integrated with health measures;
(iii) Credit mechanisms are often not in place to assist affected producers;
(iv) Rural works and food-for-work (FFW)-type activities have a patchy record in SSA but an important potential role in highly drought-vulnerable areas and also as part of anti- recessionary measures; and
(v) Drought mitigation should be incorporated into longer-term poverty programmes, including FFW and income and food transfer activities.

Drought and economic and development planning The weather is invariably cited *ex post* as an important variable determining overall patterns of growth. However, in very few of the policy and planning documents are risk of drought or climatic variability taken into account in forecasting growth rates, either for the agricultural sector or for GDP more broadly. The issue of whether or not more consideration should be given to weather patterns in drawing up long-term overall economic and development plans is by no means straightforward. Nevertheless, at least formal identification of key government and donor priorities, as they relate to specific aspects of expenditure and investment plans *ex ante*, would help to ensure continued implementation of overall economic policies, even during periods of drought.

Overall, there are many factors that can be considered in terms of drought mitigation at different *levels*:

(i) National, highly context-specific activities;
(ii) Regional issues, including EWS and logistics systems; and
(iii) Some Africa-wide issues, including, in particular, further work on the understanding of drought processes and their development policy implications.

CONCLUSIONS

Drought shocks, especially the more extreme events, do have substantial economy-wide impacts in SSA. These should be considered as part of the assessment of the need for an international response in each emerging drought crisis. Drought risks should be incorporated into both medium-and longer-term economic development policy formulation.

The preliminary findings presented, especially those on economic complexity and drought, indicate the scope for further research. In particular, stronger multidisciplinary links and more collaboration between technical, scientific and social research are needed.

The international response to a drought should be related to the likely scale of financial and economic impacts rather than to financing additional food imports and meeting immediate humanitarian relief requirements. This implies collectively maximising the grant element in assistance. Programme financial assistance, including funding tied to food imports, is likely to be a more effective response than relief food aid, wherever this is a politically feasible option.

Agencies should favour the use of more rapidly disbursing instruments and also look for ways of improving disbursement performance. There are many specific areas of drought mitigation activity that could be strengthened by better preparedness. But let us end with a caveat. This chapter has emphasised the differentiating effects of economic structures. Changes in African economies, rapid growth, especially in urban populations, and economic restructuring, entailing a possible switch of production between sub-sectors, and economic liberalisation with reduced public-sector control and involvement, all imply that the impact of a particular shock may not replicate previous shocks. Preparedness means being ready for an unprecedented situation.

Notes

1. This chapter draws heavily on a study of the economic and financial dimensions of drought in Sub-Saharan Africa undertaken jointly by Edward Clay and Charlotte Benson at ODI and with other contributions, in particular by Mike Hulme, Peter Robinson and Anne Thomson as well as the enthusiastic professional support of Harry Walters, formerly head of the Food Security Unit at the World Bank. The study was financially supported by the UK Overseas Development Administration and the African Technical Department of the World Bank. The study is

described and results are reported in Benson and Clay (1994a, 1994b) and Benson (1996). The evaluation by ODI of the ODA response to the southern African drought of 1991–92 involved John Borton, Sanjay Dhiri, Anil Dasgupta Gonzalez and Carlo Pandolfi (Clay *et al.*, 1995).

2. Droughts are notoriously difficult to define, and there is an extensive literature attempting their definition. For example, Glantz (1987), in a widely cited review, distinguishes between meteorological, hydrological, agricultural and social drought. A general working definition of meteorological drought is a reduction in rainfall supply compared with a specified average condition over some specified period. Hydrological drought pertains to the impact of a reduction in precipitation on surface or sub-surface water shortfall and so may lag behind periods of agricultural or meteorological drought. Agricultural drought is defined as a reduction in moisture availability below the optimum level required by a crop during different stages of its growth cycle, resulting in impaired growth and reduced yields. Social drought relates to the impact of drought on human activities, including indirect as well as direct impacts.
3. The concept of vulnerability is subject to many different constructions. The concept is used here to characterise the potential reduction in aggregate real GDP or sectoral product resulting from drought shocks. An approximate measure of the actual losses is the difference between the historic level of activity, and hence the rate of growth, and the level of activity that would have been expected to have occurred in the absence of the shock.
4. For example, under pressure of events, there is a strong temptation to establish temporary, parallel systems for providing relief directly. Typically, these leave nothing behind that is sustainable. If continued for any length of time, they may also undermine existing economic institutions.

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10 Structural Adjustment and Drought in Sub-Saharan Africa[1]

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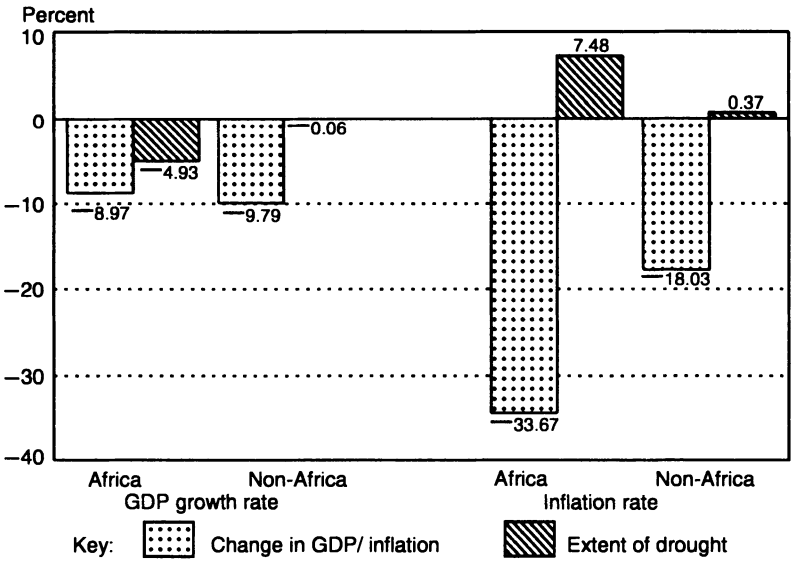
Sub-Saharan Africa (SSA) has been affected by very frequent and severe droughts in the form of extreme rainfall variability and almost a secularly declining precipitation in the sizeable arid and semi-arid zones of the sub-continent.[2] It is estimated that as much as 60 per cent of SSA is vulnerable to drought and about 30 per cent is considered to be highly vulnerable (Clay, 1995). Because of the heavy dependence on extensive resource utilisation in the context of a technologically poor agriculture and substantially disarticulated economies, the human and socioeconomic impacts of these droughts have been quite substantial. A revealing account of the impacts of recent droughts in SSA is documented by Rasheed (1993):

> the 1968–1973 drought in the Sahel caused more than 100,000 deaths, the loss of twelve million cattle, large-scale migration of herders and farmers and massive degradation of rangelands ... The 1984–1985 severe drought in this zone and other regions claimed over 100,000 lives, caused famine among forty million people, displaced another ten million people and had a negative impact on the economies of many countries. The drought has not spared even the normally rain-bountiful Eastern and Southern African sub-region. The failure of rain in late 1991 and early 1992 caused the food harvest to drop by about half the levels of previous years, necessitated four million tons of food aid, and imports of over $200 million worth of emergency non-food aid, and caused the death of large numbers of livestock and wildlife, power cuts and the closing down of factories.'[3]

Given the tremendous costs imposed by droughts in large parts of SSA as shown above, clearly this phenomenon constitutes a major constraint on Africa's prospects for achieving successful economic reforms, as well as a serious challenge to its long-term growth and

development efforts.[4] Figure 10.1 shows the median marginal impact of droughts (in 1985–9 relative to 1981–4) on real GDP growth and inflation for Sub-Saharan Africa and for other developing countries. The figure is based on the results of cross-country modified-control-group regressions on the determinants of key macroeconomic indicators (Elbadawi, 1992). The regressions account for external and internal shocks (droughts), policy stance as well as the status of the countries in question (whether or not a country is undertaking structural adjustment programmes (SAPs)). The evidence of Figure 10.1 leads to the following conclusions.

First, after controlling for other relevant influences, droughts have had a significant and deleterious impact on GDP growth in SSA, while they were not shown to be consequential in explaining the slow-down in economic growth in other developing countries. More than 50 per cent of the decline in the median SSA GDP growth rate



Notes: The predicted percentage change refers to the share of the percentage in GDP (or inflation) growth rate explained by the change in the extent of drought between the two periods; while the extent of drought is measured by the shortfall of cereal yield relative to the trend multiplied by the share of agriculture to GDP measured at the base period (1970–80).
Source: Based on regression results obtained from Elbadawi (1992).

Figure 10.1 Droughts and economic performance in Sub-Saharan Africa and other developing countries

between the two periods can be attributed to the drought effect. On the other hand, a mere 1 per cent of the decline in the median rate of growth for other developing countries was accounted for by droughts.

Second, a similar story applies in the case of inflation. Even though, between the two periods, median rates of inflation in fact declined by 34 per cent in SSA and 18 per cent in other developing countries, the partial drought effect predicted that inflation would rise (rather than decline) by 7 per cent in SSA compared with a negligible 0.4 per cent for other developing countries.

These findings corroborate the claim that droughts tend to have a more severe economic (as well as human and social) impact in SSA relative to other developing countries. Thus droughts in SSA should be viewed as a major constraint (as well as a challenge) to development and improvements in welfare on the African continent. Indeed, after more than a decade and a half of implementing SAPs,[5] the performance of SSA has been rather disappointing (World Bank, 1994). Empirical evidence suggests that decisions by reforming countries to undertake adjustment were usually triggered by adverse exogenous shocks, following a protracted period of substantial economic mismanagement, structural inflexibility, and microeconomic inefficiency.[6] These were initial conditions similar to those that tended to exacerbate the impact of droughts. The exogenous shocks that 'do the trick' are normally of an external nature. They include severe terms of trade deterioration, reduced external aid, or a steep rise in the cost of external borrowing (Elbadawi, 1992). Nevertheless, there are instances where shocks, such as droughts, have been the main trigger for undertaking SAPs in SSA (Benson and Clay, 1994). On the other hand, SAPs are also designed to enhance the flexibility of the economic system to accommodate adverse exogenous shocks in the short-to-medium term, and to lay the foundation for restoring growth and for further deepening of the articulation of the economy. In turn, they should improve the economy's capability to manage adverse shocks such as drought.

The above review clearly suggests that the interactions between drought and structural adjustment should be an important issue in the debate on the effectiveness of SAPs and on the broader development prospects in SSA. This issue will be the focus of this chapter. Specifically, the main objective of this chapter is to explore the extent to which the design of structural adjustment programmes for drought-prone countries should be modified so as to account for drought explicitly as an agro-climatic, agricultural, economic and

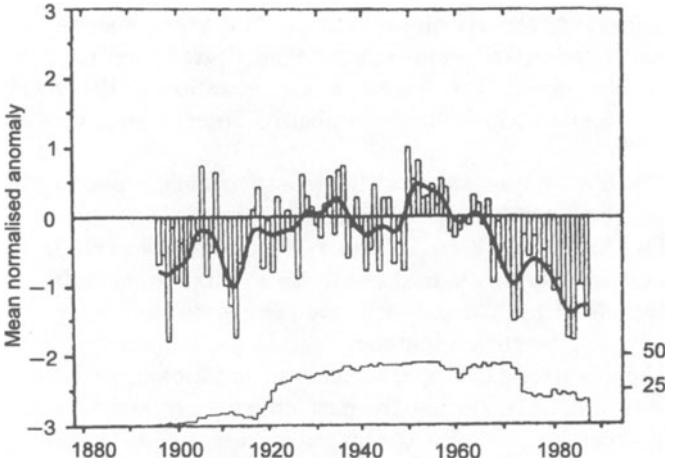
sociopolitical reality in these countries. The aim would be to allow SAPs to anticipate the incidence of droughts in the short term, and hence prevent them from derailing the reforms. In the medium-to-longer term, an appropriately conceived SAP should spearhead a process of economic transformation that would incorporate a long-run drought mitigation strategy. The second section of this chapter reviews evidence on the interaction between structural adjustment and drought in SSA. The third section addresses some further issues relating to the design of SAPs in both the short run and in the long term. The fourth section presents some conclusions.

DROUGHTS, LAND DEGRADATION AND SAPS IN SSA

Two interrelated issues are discussed in this section. First the debate on the causes of land degradation in SSA are reviewed. It focuses specifically on the relative influences of climatic and man-made factors. Second, evidence on the relationship between drought and SAPs in SSA, which draws heavily from Benson and Clay (1994), is reviewed.

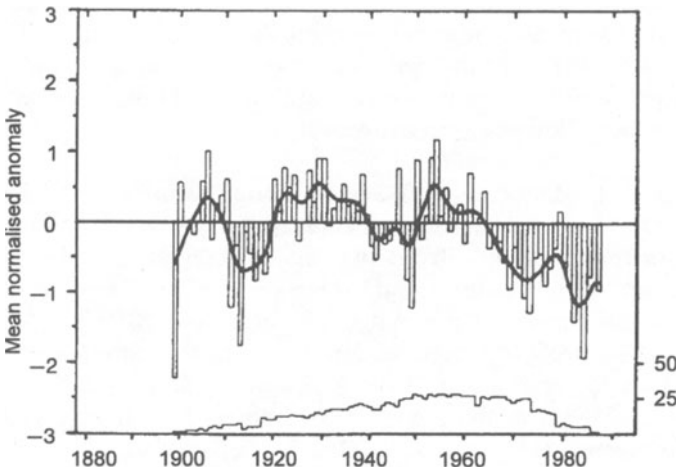
Land Degradation in SSA: Climatic or Man Made?

The Sahel region of SSA (the most drought-prone region of SSA) has experienced a significant decrease in rainfall since the mid-1960s (see Figures 10.2a and 10.2b). This severe rainfall deficit over three consecutive decades has been the main factor causing declines in vegetation growth in general, and crop yields in particular.[7] The question then arises: how much of the observed variation in vegetation conditions is caused by land degradation – a term preferred to desertification[8] – resulting from adverse human impact? One view argues that, 'it is likely that what has been described by many as desertification, is mainly a temporary condition resulting from the annual climatic variation. The resilience of arid ecosystems have often been gravely underestimated or totally ignored in the desertification debate' (Olsson, 1993). To corroborate this point, Olsson studies the determinants of the negative trend in cereal yield (an indicator of soil quality) in the arid and semi-arid zones of Sudan between 1961 and 1986. He estimates that rainfall variation has accounted for some 55–99 per cent of the variation of crop yield while land degradation accounts for a mere 10–15 per cent.



Notes: The smooth line indicates the course of the slower background variations (obtained using a padded ten-term Gaussian filter). The bar chart at the base shows the number of stations included in the average for each year (40).
Source: Helldén (1991).

Figure 10.2a Regional rainfall time series for the Western Sahel: 10–15°N, 20°W–10°E.



Notes: As Figure 10.2a.
Source: As Figure 10.2a.

Figure 10.2b Regional rainfall time series for the Central Sahel: 10–15°N, 10–40°E up to roughly the Ethiopian border (40).

Helldén (1991) reports on an international expert meeting on natural desertification and man-induced land degradation organised by the Swedish Agency for Research Co-operation with Developing Countries (SAREC) in 1990. A number of observations were made:

(i) The most important, and the most variable, input to arid and semi-arid production systems is water;
(ii) The Sahel has been suffering from a below-average rainfall situation during the past twenty-five years but including shorter periods of both strong negative (severe drought spells) as well as strong positive anomalies;
(iii) There is strong evidence of climatic variations that lasted up to several decades during the past millennium in the Sahel. That is, recurring droughts of this magnitude are 'normal';
(iv) From a climatological viewpoint, there is no evidence that the recent drought is part of a climatic change;
(v) These climatic variations are managed with various strategies by arid and semi-arid production systems (that is, resilience), mainly aimed at controlling the spread of risk spatially and socially;
(vi) Changes (for example, population growth, mechanisation, land ownership) could reduce this resilience and increase vulnerability to smaller and more frequent fluctuations; and
(vii) In turn, this could lead to land degradation, but would more probably first cause social adaption (for example, migrations) which allow the land to recover.

Notwithstanding the scanty and unreliable nature of available data on desertification in the Sahelian countries, the SAREC meeting drew three main conclusions from the above observations: the climatic impact on the environment and on the arid and semi-arid production systems has been underestimated; the resilience of the production system has probably been underestimated; the supposed adverse impact on the production of the African drylands, through mismanagement of the available resources by humans, might very well have been overestimated.

There are three important implications for the possible impact and potential role of SAPs in the drought-prone countries of SSA: (i) the introduction of SAPs in drought-prone countries should take account explicitly of droughts as the fundamental constraint on land productivity; (ii) although structural adjustment remains essential as a

prelude to sustainable economic reforms, the ability of SAPs to influence (positively or negatively) the economies of these countries in the short term is rather limited; and (iii) it is only in the longer term and when more structural policy reforms are implemented, that a long-term and sustainable drought mitigation capacity can be developed.

SAPs and Drought in SSA: The Received Wisdom[9]

More direct evidence on the rather complex relationship between the process of structural adjustment and economic resilience to drought is extensively analysed by Benson and Clay (1994). Drawing on the recent experiences of Southern African drought (Zambia in 1992 and Zimbabwe in 1991–2), the authors identify six issues relating to the interrelationship between drought and structural adjustment.

Adoption of reform programmes There is some evidence that natural disasters may provide a short-term trigger leading to the adoption of a structural reform programme (Killick and Malik, 1991). However, whatever the factors contributing to the efforts to launch a major programme, it may be inappropriate in such circumstances.

Progress of reform Structural adjustment programmes typically do not anticipate droughts in their design, although droughts can have major implications for the progress and ultimate success of reform programmes. However, the impact of a drought shock can be expected to be less significant when it occurs during the later stages of a reform programme.

Short-term adverse impacts of reform First and foremost, drought probably exacerbates the short-term adverse impacts of an SAP via its effects on vulnerable groups. To the extent that governments continue to reduce subsidies on basic food and other commodities, drought typically contributes to inflation and to job losses. It can also intensify the short-term adverse economic impacts of SAPs by, for example, prolonging tight monetary policy, which in turn has implications for investment (as occurred in Zimbabwe).

Abandonment of reform programmes Senegal's experience in 1980 provides the only example of a country where drought actually contributed to the abandonment of a reform programme. More recently, however, this possibility has become less likely because of a combina-

tion of two factors. First, there is now more flexibility in the implementation of reform programmes (as indicated by the experience of both Zambia and Zimbabwe). Moreover, more pressures were put on reforming governments to sustain reforms during periods of economic difficulty. Of course, policy reversals cannot be ruled out, since governments need to pay attention to their domestic political constituencies, whose interests may run counter to the requirements of reform programmes.

Drought-relief responses Governments also have to pay attention to donors and to international financial institutions (IFIs) because of a growing reluctance on their part to provide aid to non-reforming countries, particularly those from which the IFIs have in fact withdrawn assistance. These concerns can influence the design of drought-relief programmes.

Structural adjustment and drought vulnerability In drought-prone countries the ability to sustain reform following droughts crucially depends on the stage reached in the adjustment programme and on the resolve and political strength of the reforming government. These governments face particular difficulties during and in the immediate aftermath of drought, and, depending on the above considerations, they may be forced to scale down or delay the reform programme.

IMPLICATIONS FOR THE DESIGN OF SAPS IN DROUGHT-PRONE COUNTRIES

A number of questions arise from the above discussion. Do SAPs reduce or aggravate the impacts of droughts in the short-run? How can SAPs be better designed to yield short-run results that can at least avoid the second outcome? And, finally, how can SAPs be better designed and implemented to improve their capacity to enhance flexibility and diversification of the economy and thus the ability of the economy to accommodate droughts in SSA?

SAPs and Drought in the Short Term

By focusing on eliminating bias against tradable activities (arising from overvalued real exchange rates and sector-specific taxation), SAPs have improved substantially the structure of incentives for

agriculture and other tradable sectors in SSA (Elbadawi, 1994). Indeed, despite their failure to revive economic growth in the short-run, SAPs had a strong and positive effect on the performance of agricultural exports in reforming African economies in the 1980s (Elbadawi, 1992). However, some critics of SAPs – especially environmentally-concerned NGOs – have argued that SAPs have over-emphasised the role of agriculture through substantially-enhanced incentives, under conditions of high external indebtedness. As a result, they have encouraged accelerated over-utilisation of natural resources in the environmentally fragile and drought-prone areas of SSA, and hence have aggravated the impacts of droughts in these areas (for example, Torfs, 1991; Reed, 1992).

However, focusing only on the incentive structure does not lead to a compelling critique of SAPs on this score. This is because the conditions of low (rather than high) returns to agriculture that pre-dated SAPs, coupled with consequences of other policy failures such as population pressures, have substantially contributed to accelerated land degradation following the extended periods of drought that befell SSA. More importantly, in the longer run, low agricultural prices tend to discourage adoption of new technologies; and hamper diversification, articulation and deeper economic interdependence. The combination of these factors perpetuates vulnerability to drought and other exogenous shocks in the longer term (Cleaver, 1993; Harrison, 1990). It can be argued that improved agricultural incentives may be compatible with environmentally-sustainable agriculture on at least two counts. First, better terms of trade for agriculture may render farming of high-risk, low-return and possibly environmentally-fragile areas unnecessary, because of increased incomes, agricultural and non-agricultural, in rural areas (Mellor, 1990). Second, to the extent that SAPs lead to higher prices for agricultural exports (mainly trees or perennial crops) than food crops, they may promote better environmental outcomes, even in the short run (for example, Repetto, 1989; Elbadawi, 1985).

A more positive outcome from improved incentives, however, crucially depends on prevailing institutional (especially land tenure and land use) and technological structures in African agriculture. To the extent that these aspects were not given due consideration in the design of SAPs, this could be an appropriate entry point for a 'contracture' critique of SAPs.[10] For example, because of the collapse of traditional communal land management systems, and the consequent absence of well-defined and enforceable property rights in the dry zones of SSA, Cleaver (1993) strongly emphasises the need for

land-use planning (see p. 232). Even though it may not be possible to implement comprehensive land reforms in the short run, it is clearly advisable to start these reforms simultaneously with price reforms.

A host of design features that are essential for ensuring that SAPs promote short-run flexibility and responsiveness in drought-prone countries, are suggested by the research work of Benson and Clay (1994) reviewed above. The authors recommend that if a drought occurs while a country is undertaking an SAP, the programme should be designed to allow for

> monitoring and, if necessary, the holding of prompt discussions with governments of the affected countries to review and perhaps modify programmes accordingly. There is also a need to recognize ex ante that drought could occur during the period of a reform programme and to have some overall sense of the impact that such a shock could have on the programme. This should help in establishing realistic targets and also in ensuring speedy and appropriate revision of reform programmes as necessary. In the event of a drought shock, re-phasing of some policy objectives, the reallocation of resources already committed but which may be under-utilized as a consequence of the shock and the rapid commitment and disbursement of additional external resources in support of the structural adjustment programme may all be appropriate courses of action. Concerns to sustain the reform programme should not obligate a government to finance its drought response in ways that intensify the recessionary effects of the shock on the domestic economy, as in Zimbabwe in 1992/93 (Benson and Clay, 1994, pp. 24–32).

An issue of particular relevance for the design of SAPs in drought-prone countries is the poverty link to environmental degradation.[11] This provides a very persuasive argument (from the perspective of sound natural resource management) in favour of introducing short-term relief measures in the context of SAPs, especially if there are doubts that they may have worsened (or at least have failed to improve) poverty in reforming countries.[12] For example, Ali (1993) argues that to the extent that an SAP could be represented by its 'price reform' component, a poverty index such as the poverty-gap could capture their effects directly. He then applied a before-and-after approach – using poverty as an indirect environmental performance indicator – to a sample of ten SSA countries. His results show that poverty increased during the adjustment period. Exploiting the World

Bank's own proposition of a strong relationship between poverty and environmental degradation, Ali used his results to infer that, 'SAPs must have had a negative impact on the environment in SSA'.

The above discussion suggests some possible pointers for the design of SAPs in drought-prone countries. In the short term, the following considerations (or policies) should be included in SAPs:

(i) Droughts should be taken into account explicitly during implementation of reforms. Performance criteria, disbursement procedures, short-run drought-mitigation measures (such as food aid), as well as broader measures aimed at poverty reduction in the short-run should be flexible;
(ii) Level the playing field for agriculture by eliminating biases in the structure of incentives, especially the economy-wide types that operate through overvalued real exchange rates;
(iii) Use agriculture-specific intervention instruments (pricing, subsidies, taxes) in order to encourage cultivation of trees and leguminous crops, restocking of forests and reducing the cultivation of field crops in ecologically fragile and drought-prone areas;[13]
(iv) Introduce land tenure reform in order to ensure property rights for local people and to eliminate 'open access'. Introducing the land reform simultaneously with macroeconomic and other agricultural pricing reforms suggests an important sequencing consideration in the design of SAPs for drought-prone countries.

The objectives of structural adjustment in the short-run should be modest. Perhaps beyond achieving basic macroeconomic stabilisation, it should only attempt to avoid a perverse response to incentives (from the perspective of natural resource management). Securing these objectives in the short run should allow for further consolidation of the gains from SAPs in the medium-to-longer runs, when more advanced technological systems, deeper reforms and more fundamental strategic planning could be deployed.

SAPs, Drought and Long-term Development in SSA

Admittedly, structural adjustment is not a development strategy. However, it contributes to it by promoting and confining the role of the state mainly to the task of creating an enabling environment for the private sector, and delivering a stable macroeconomic

environment and an efficient microeconomic and institutional structure. This is no small task. However, as a result of accumulated development experiences (for example, the East Asian experience) and recent theoretical and methodological advances (the endogenous growth and new trade literatures), even more important roles for the state have been emphasised. It is argued that the state should also provide incentives to promote the production and diffusion of knowledge and technology through R&D research; train and invest in education; and provide public services and public goods (such as infrastructure, and legal and regulatory frameworks), which can generate multiplier effects and other complementary inputs to the development process.

New and refreshing thinking on SAPs in the context of SSA and long-term development argues that for economic reforms to lead to sustainable and equitable growth, they should be guided by and implemented in the context of a development vision for managing a nation's economic development under uncertain internal and external environments (World Bank, 1995). This development vision should be both strategic (and as such avoid attempting to micro-manage the economy through a central bureaucracy) as well as broad enough to cover both national policy and external economic relations, including regional co-operation (Elbadawi, 1995).

Clearly, this framework is relevant for all reforming countries, including those that are prone to drought shocks. However, the articulation of more precise policies for the latter group must be based on the special characteristics of such countries. One important characteristic is the land use and land management system. Two key features of African dryland areas – which are also the most drought-prone areas – are (i) that there are diverse actors (farmers, pastoralists, fuel-wood gatherers, biodiversity interests) with often conflicting interests and incompatible approaches; and (ii) that there are no functioning private ownership mechanisms to allocate land to its most efficient users, while the traditional communal ownership practices have effectively collapsed because of misguided policies,[14] population pressures – especially from immigration – and the subsequent erosion of land-carrying-capacity in these areas (Cleaver, 1993). Cleaver argues that, under these circumstances, land-use planning is very important. He emphasises the importance of grouping local people into associations, which are given ownership of land or assured of long-term user rights. Clearly, land ownership or secured rights for using it for a very extended time is a pre-condition for generating responses to incentives that not only maximise private economic

returns in the short-term but also ensure longer-term conservation and sustainable resource management.

Following from this, several requirements of sustainable development can be identified:

(i) Land tenure reforms to enhance property rights in the context of popular communal participation: here the role of the state as an impartial enforcer of social and economic contracts cannot be over-emphasised. Popular participation in land use and resource management requires a wider concept of agricultural development that involves other elements of civil society beyond government and beyond good governance (Cleaver, 1993).

(ii) In conjunction with land reforms, which should eliminate a major negative externality, further deepening of markets (especially financial markets, including the creation of new risks and futures markets) is required, in order to minimise the differences between private and socially optimal behaviour. Unless these distortions are dealt with, project-level efforts to improve land management will remain partial and ineffective (Bojö, 1991).

(iii) Appropriate population policies need to be designed and implemented in order to improve the geographical distribution of population (relative to carrying capacity), and to reduce pressure on relatively fragile areas, at both national and regional levels. Three sets of policies could be implemented to achieve these objectives (Harrison, 1990). First, reduce the population growth below medium-term projections for SSA. Second, encourage internal (preferably permanent) migration to higher potential areas.[15] In this regard, the regional distribution of infrastructural development could be an important instrument of strategic planning. Such approaches could be intensified in areas that have higher potential carrying capacity than currently utilised; however, it should be extended to environmentally fragile regions only at a measured pace. Third, external (and possibly temporary) migration from poorer to richer natural resource countries or to more developed ones could provide an avenue for reducing pressure on fragile natural resources in sending countries. Moreover, outmigration could also be an important source of foreign exchange for resource-poor economies (through immigrants' remittances), while providing a source of labour for resource-rich economies. This migration already occurs widely (for example, 'from the Sahelian countries

to the humid coast in West Africa, and in East and Southern Africa to cities, mines and plantations' (Harrison, 1990). However, for this option to be sustainable and beneficial to both receiving and sending countries, it should be organised within the context of a broader regional co-operation initiative.

(iv) Creation of indigenous capacity for research and extension of appropriate crop and livestock technologies that are both soil-conserving and profitable for farmers and herdspeople. However, given the very different agro-climatic characteristics of the arid and semi-arid areas of SSA (relative to, for example, Asia), the benefits of the green revolution are not widely available for SSA. Thus a whole new green revolution may have to be developed for the arid and semi-arid areas of SSA. This would be expensive for small countries, and countries with weak resource bases (such as the Sahel countries) to undertake. Regional co-operation could be a viable approach towards undertaking this task. In this regard, the relevant multilateral development institutions such as the World Bank, the United Nations Environmental Programme (UNEP) and the International Food Policy Research Institute (IFPRI), could play an important role in terms of providing technical assistance and mobilising external financial support.[16]

(v) Promotion of non-agricultural rural industries to reduce pressure on land is needed badly in drought-stricken economies. It is also necessary for agricultural transformation in general. Findings from a recent time-series-based study suggest that international prices of primary commodities have experienced a secular decline of the Prebisch–Singer type (Elbadawi, 1995). This indicates clearly that the importance of export diversification *beyond agriculture* as a paramount development objective cannot be overstated. The key question is: what is the best strategy for promoting it? One key area where governments can influence the pattern of specialisation is where there are significant possibilities for externalities and public goods. Human capital is a case in point. When scarcity of technical progress-enhancing human capital makes the production of capital goods too expensive to be internationally competitive, investment in education can clearly reduce these costs and influence the pattern of specialisation.[17]

In particular, some relatively resource-poor countries or those that have arid zones appear to be in dire need of diversifying

their economies (for example, by developing industry, minerals, or tourism) in order to generate sufficient foreign exchange to pay for food imports.[18] This option demands expansion of the pool of skilled labour.

(iv) Finally, the role of external support for the development effort must not be underestimated: one of the important lessons of the reform experiences in Latin America in the 1980s, and now of Africa in the 1990s, is that stabilisation by itself may not be enough to trigger the 'good equilibrium' that is consistent with a virtuous circle from stabilisation to growth (Dornbusch, 1990a). There is a need, therefore, for an external mechanism to resolve this co-ordination failure and break the tendency for the market to wait, often for a long period, following an otherwise successful reform programme, before national and foreign investment is generated. In the context of Latin America, Dornbusch (1990b) argues that, 'a minimal step in that direction is for industrial countries to support the complete suspension of external debt service – to commercial banks and to official creditors – for the substantial period'.

In the case of the even riskier and poorer drought-stricken economies of SSA, this argument is even more compelling. In the case of these countries, the 'debt for nature' swaps[19] are one of the most natural forms of external support for countries hoping to arrest environmental degradation. They can also help to promote economic diversification and the long-term capacity for mitigating the economic and human consequences of droughts. Unfortunately, at least in the view of the concerned African institutions, the main mechanism set up for helping developing countries to improve the global environment (the Global Environment Facility (GEF)), has not thus far favoured Africa (Rasheed, 1993).[20]

CONCLUSIONS

The evidence in this chapter corroborates the claim that droughts tend to have a more severe economic (as well as human and social) impact in SSA relative to other developing countries. Subscribing to this evidence, the central theme of the chapter is that the interactions between drought and structural adjustment should be an important issue in the debate on the effectiveness of SAPs and on the broader

development prospects in SSA. In this regard, the chapter explored the extent to which the design of structural adjustment programmes for drought-prone countries should be modified to account explicitly for drought as an agro-climatic, agricultural, economic and socio-political reality in these countries. The aim would be to allow SAPs to anticipate the incidence of droughts in the short term, and hence to avoid the derailing of reforms as a consequence of the latter. In the medium-to-longer term, an appropriately conceived SAP should spearhead a process of economic transformation that would incorporate a long-run drought mitigation strategy.

Notes

1. The author would like to acknowledge the helpful comments from Dr Kwadwo Tutu and participants at the Development Studies Association Annual Conference (University College Dublin, 7–9 September, 1995). Any errors or omissions are, however, the sole responsibility of the author. Also, the views expressed in this chapter do not necessarily represent the official view of the African Economic Research Consortium. The author would like to acknowledge the research assistance of Sheila Nyanjui.
2. Quoting Glantz (1987), Clay (1995) distinguishes between four definitions (or impacts) of droughts: (i) meterological drought, which is a reduction in rainfall supply compared with a specified average condition over some specified period; (ii) hydrological drought, which pertains to the impact of a reduction in precipitation on surface or sub-surface water shortfall and so may lag behind periods of agricultural or meterological drought; (iii) agricultural drought, which is defined as a reduction in moisture availability below the optimum level required by a crop during different stages of its growth cycle, resulting in impaired growth and reduced yields; and (iv) social drought, which relates to the impact of drought on human activities, including indirect as well as direct impacts.
3. For more details on the droughts and their impact in SSA see Glantz (1980). Even though droughts are seen as major shocks to the economy – especially the food sector – some authors suggest that these estimates of the costs of drought may be on the high side. They argue that the concern for attracting sufficient aid might have generated a tendency by the media as well as by scientists to exaggerate the excess mortality rates resulting from famine (Olsson, 1993).
4. Rasheed (1993) noted that 'the seriousness of the drought situation led the ECA Conference of Ministers to adopt a special memorandum calling for national, regional and international measures to deal with the situation (see ECA, 'Special Memorandum by the ECA Conference of

Ministers on Africa's Economic and Social Crisis', E/ECA/CM–10/37/ Rev. 1, Addis Ababa, May 1984). (The ECA is the UN Economic Commission for Africa.)

5. For example, between 1979 and 1987 about twenty-five countries from SSA have undertaken World Bank-assisted SAPs (Elbadawi, 1992). More recently it was reported that there were about twenty-nine Sub-Saharan African countries with a population of 500 000 or more in mid-1991, reasonable social stability, and adjustment programmes in place during 1987–91 (World Bank, 1994). More than ten of these countries are considered to be drought-prone.
6. Structural adjustment programmes (SAPs) contain policies to restore major macroeconomic balances, effect microeconomic efficiency, and implement supply-side measures; and conditional external financing to help smooth the process of adjustment by distributing the cost of adjustment over a longer span of time than would have been necessary in the absence of external finance.
7. Rasheed (1993) reports some early results of the study on ecological damage in the Sahel zone, which started in 1979, by a working group from the Göttingen Academy of Sciences in Germany. It tends to show that, 'recurrent droughts in the Sahel are having increasingly drastic consequences causing land to degrade faster into descent and unstoppable migration into cities. These results also seem to dispute claims that nature itself is repairing the effect of the drought'.
8. Desertification, or serious dry-land degradation, is defined as the spread of desert-like conditions of low biological productivity as a result of human impact under climatic variations, Helldén (1991).
9. This sub-section draws heavily on Benson and Clay (1994).
10. Even within the World Bank, early designs for SAPs have been criticised for being narrowly focused (Cleaver, 1993).
11. See World Bank (1992a and 1992b).
12. See, for example, World Bank (1992a) and Cornia *et al.* (1987).
13. For example, Elbadawi (1985) shows that appropriate incentive policies could substantially encourage stocking of Senegal acacia trees in the arid and semi-arid zones of Sudan. This tree has very favourable environmental qualities (nitrogen fixation) in addition to being the bearer of Sudan's major export crop (gum arabic).

    Also, some cost–benefit analysis done for Niger for a period of ten years on agro-forestry shows that both incremental financial and economic analysis are highly attractive. Without counting the indirect benefits of watershed control, nutrient- cycling and erosion control of agro-forestry, it is still very profitable. The main problem is that there is a shortfall of net returns only for the first year, and here policy like cash distribution have to be undertaken since, irrespective of the overall benefits, the poor cannot undertake a fall in returns for the year. There should also be a conscious policy by the government with extension service to prove the profitability of it. If left alone, farmers would not undertake it. In fact, farmers were provided with free seedlings by the government.

14. The Butana region of the Sudan represents an example of the potentially damaging impact of such policies on the environment and on communities. Akhtar *et al.* (1994) state: 'the Butana is a region which since time immemorial has been known to have excellent pastures. Although the natural resources of the area were always affected by droughts, tribal practices formerly controlled the grazing and water resources in the area according to tribal structures and needs ... thus securing pastures from permanent over-exploitation. In 1971, the former president Numeri's socialist inspired policy that state-owned lands, that is, natural resources should be accessible to everybody, led to the abolition of communal grazing lands since then has triggered a rapid spread in desertification. Sedentarization of formerly nomadic groups added to the strain on the environment.'
15. Such migration is occurring on a large scale in some countries such as Sudan, Ethiopia, Burkina Faso and Mali.
16. For example, in the area of geographical information systems (GISs) – which are designed to make use of aerial photography, remote sensing as well as ground inspections and data collections – there is considerable need for technical assistance. As explained by Cleaver (1993), 'GISs will be useful to monitor the progress of natural resource degradation and destruction, to assess land capability for various uses and, thus, to provide the basis for sound land-use planning, and environmental assessment of development planning'.
17. This view appears to be corroborated by the successful experiences of the East Asian countries. The initial industrialisation in these countries exploited mainly their comparative advantage in unskilled labour. However, as industrial experience grew, real wages rose, and the educational attainment and the skill composition of labour force increased, new industries with comparative advantage emerged (Krueger, 1981). Skills formation and increase in technological capabilities was thus part of the experience in successful industrialisation and not merely a pre-condition for industrialisation. This points to an important feedback from the process of industrialisation to building these capabilities and ultimately enabling shifts in comparative advantage.
18. Harrison (1990) argues that, 'Looking ahead to the year 2010, and assuming all countries have by then reached an intermediate level of inputs, ten countries will be critical: Mauritania, Niger, Somalia, Burundi, Rwanda, Kenya, Lesotho, Swaziland, Comoros, and Mauritius. The situation will also be tight in Senegal, Nigeria, Ethiopia, and Uganda, and in parts of all countries that have semiarid zones.'
19. See Rugumamu (1993) for a critical assessment of the role of SAPs in environmental degradation in Tanzania, and the scope for reclaiming forests through 'debt for nature' swaps that were previously lost to logging and tobacco cultivation.
20. While demanding that Africa should take responsibility for dealing with the challenges of sustainable development, by 'thinking strategically and acting strategically', Rasheed (1993) very persuasively articulated African concerns regarding the support from the international community, as reflected by international initiatives such as the GEF.

However, debt-for-nature swaps suggested to control the degradation is only a temporary relief. Most degradation takes place because of poverty. Swapping debt without better poverty-reduction policies will wipe the debt slate clean, but the perverse incentive of degrading will still be there.

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11 Drought and the Zimbabwe Economy, 1980–93[1]

Charlotte Benson

DROUGHT AS AN EXOGENOUS ECONOMIC SHOCK[2]

From an economic perspective, drought may be viewed as an exogenous, but internal, supply-side shock which results directly in sharp reductions in agricultural production and reduced export earnings. Meteorological drought may also result in hydrological conditions that have an adverse impact on non-agricultural production, including hydroelectric power generation, human water supply and certain industrial processes. In addition, droughts have potential knock-on effects on non-productive aspects of an economy such as the budget deficit, the rate of inflation, interest rates, availability of credit, levels of savings, and external debt stocks. These direct and indirect impacts and multiplier effects together mean that the economy-wide consequences of a drought shock may be considerable. However, these impacts may be highly differentiated in terms of both their scale and character, partly depending on the economic structure of a country and the nature of intersectoral linkages and resource endowments, as well as on other factors such as the prevailing economic conditions and policy environment.

Evidence on the economic impact of drought indicates two underlying relationships between the stage of economic development and the impact of a drought shock, in turn suggesting a fourfold typology framework for examining droughts. First, reflecting the conventional view of the impact of drought, the lowest-income countries are, in some senses, the most vulnerable. Such economies, which could be termed 'simple economies', are characterised by high shares of agriculture in gross domestic product (GDP), and high degrees of self-provisioning by households. Droughts have potentially severe effects in these economies, causing widespread human distress.

However, it is far from obvious that economic development necessarily reduces macroeconomic vulnerability to drought. Instead, a second

counter-intuitive relationship is also apparent, suggesting that in the transition from simple to what could be termed 'intermediate' economies the national economy may in fact become more vulnerable to drought and therefore more severely damaged by drought shocks. This is based on the observation that features typical of a simple economy effectively contain the economic effects of drought, with the impact largely being felt at the rural household level and within the informal economy. As an economy develops, with diversification into manufacture of technologically simple products utilising domestically-produced raw materials, growth in financial and commodity markets and an expansion of both the monetised consumption base and non-agricultural sectors, national economic vulnerability increases initially. The multiplier effects of the expenditure of agricultural incomes on other domestic products also grow, again spreading the impact of drought through the economy. In such economies, recovery is not immediate on the return of good rains; it also depends on rates of recovery in other sectors, which may be slower.

In the later stages of development, in what could be termed 'complex' economies, vulnerability to drought shocks declines as the agricultural sector decreases in importance, both in GDP and as a source of employment, also implying weaker forward and backward linkages between the agricultural sector and the rest of the economy. Such economies are also relatively more open and do not face major foreign exchange constraints, ensuring that any domestic shortfalls can be met through imports without affecting other trade flows.

Finally, resource endowments also play some role in determining the impact of drought, in some instances overriding the expected impact implied by the level of development. This suggests a fourth type of economy – a dualistic economy that has large extractive mining sectors, weakly linked to the rest of the economy and so relatively immune to performance in other sectors. With careful management of such resources, dualistic economies can withstand severe drought shocks with little effect at the macro level.

This economy typology also provides a useful framework for designing appropriate mitigation and relief measures to counteract the impact of drought shocks. In intermediate and complex economies, where drought shocks are likely to be more widely diffused, provision of rapidly disbursing additional financial aid to provide balance-of-payments and budgetary support should have the highest priority – assuming, of course, that donors and the recipient government are in broad agreement on overall aid and public expenditure

priorities, and that the recipient government undertakes its own relief measures to address the needs of immediately affected households. In contrast, in simple economies, where the effects of drought will be concentrated in rural areas, there is a real danger that a drought/famine syndrome could develop, particularly in the absence of good governance, sensitive to the impacts of the shock. More targeted interventions, possibly including emergency aid, are therefore needed in such economies. Meanwhile, in dualistic economies, where the effects of drought are also largely contained within the rural sector, the extent to which substantial assistance is needed at all has to be considered carefully.

This chapter examines in more detail the impact of drought in a particular country context, providing evidence on the vulnerability of an intermediate economy to drought shocks. It considers the case of Zimbabwe, a somewhat atypical country by Sub-Saharan African standards, containing a relatively large manufacturing industry (accounting for 28 per cent of GDP in 1990) with strong intersectoral ties, including forward and backward linkages with the agricultural sector. The chapter considers the mechanisms by which such an economy might be expected to be affected by a drought, the factors effectively blocking these mechanisms, and the adaptive behaviour adopted to mitigate the impacts of drought.

THE INCIDENCE OF DROUGHT IN ZIMBABWE

This chapter is not concerned with drought in the arid zones of Zimbabwe, which occurs virtually every year, but with the less frequent droughts in regions of higher rainfall – effectively nationwide droughts which can be considered as exogenous shocks. Since Independence in 1980, the country has experienced four such droughts – in 1982–3, 1986–7, 1991–2 and 1994–5. The impacts of the 1982–3 and 1991–2 droughts were magnified by preceding regional droughts in the more drought-prone area of the country, while the 1982–3 drought was succeeded by a further year of provincial drought.

In meteorological terms, the drought of 1991–2 was particularly severe. Nationally, it was the most serious drought for at least seventy years, with a mean annual rainfall of only 324mm, compared with a mean rainfall over the period 1961–90 of 662mm. The extreme south-east was the most severely affected area, with levels of rainfall below 20 per cent of the historic norm. Aggregate levels of rainfall were also

Box 11.1 Lake Kariba and the 1991/2 drought

Zimbabwe relies largely on a combination of hydro and thermal sources for electricity generation, with domestic production augmented by a small volume of imports. During the 1982–3 and 1986–7 droughts, the electricity supply was largely unaffected by reduced levels of rainfall. In contrast, in the aftermath of the 1991–2 drought the country experienced severe electricity difficulties, with power generation reduced by approximately 50 per cent in 1992, and suffered additional supply problems in 1993. However, these electricity shortages were the consequence of long-term water mismanagement combined with thermal power generation problems and management difficulties (Powerplan Consultants and Zimconsult, 1992) rather than being caused by the 1991–2 drought *per se*. The drought simply proved to be the final trigger.

Zimbabwe and Zambia draw on the Kariba Dam for their hydroelectric power generation. Since 1981–2, a sequence of years of lower than average rainfall in the Kariba and Kafue catchments had been predicted, but water offtake for power generation at Kariba by the Zambian and Zimbabwean electricity generating authorities continued to be based on the average intake for the relatively more favourable 1970s. As a result, offtake exceeded the rate of inflow into the lake by an average of 16 per cent, making the system increasingly vulnerable to further rainfall anomalies. At least in the case of Zimbabwe, such reckless management may in part reflect pressures to minimize short-run costs of power generation in the face of the large operating deficits of the Zimbabwe Electricity Supply Authority. The effects of electricity curtailment in Zimbabwe in 1992 were estimated as a reduction of Z$560m in GDP and Z$200m in exports and the loss of 3000 jobs.

insufficient to provide irrigation for sugar cane or 'temperate' winter season crops, especially wheat. The impact of the 1991–2 drought has been exacerbated by low annual rainfall levels since 1987 which, together with inadequate investment and poor management in the water sector, meant that water levels in both natural and artificial systems were already extremely low. Consequently, the drought had potentially severe implications for urban and industrial water supplies, and thus for the generation of hydroelectric power, as well as for agriculture (Box 11.1).

PRODUCTIVE IMPACTS

Drought is a physical phenomenon, with physical consequences for both water-intensive and non-water-intensive sectors of an economy. Productive sectors are also affected via the impact of drought on patterns and levels of consumption, and thus on demand in the economy. The precise nature and magnitude of such impacts clearly depend on the productive structure of an economy, the existing stock levels, the price elasticities of demand and supply for intermediate and final consumer goods, and the openness and composition of external trade. The adaptive behaviour of various economic agents also plays some part in determining the impact of a drought shock (see Box 11.2).

In the case of Zimbabwe, the relationship between yearly deviations of agricultural and non-agricultural GDP from their respective time trends and deviations of rainfall from the 1961–90 mean are depicted in Figures 11.1 and 11.2. A clear relationship is discernible between years of poorer rainfall and weaker agricultural sector performance,

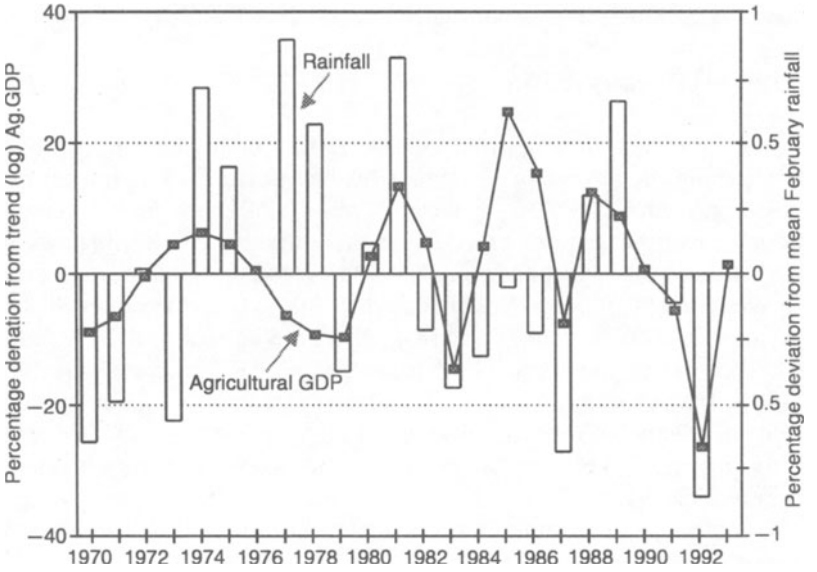

Figure 11.1 Movements in agricultural GDP and rainfall [a] 1970–93

Notes:
[a] National February rainfall.

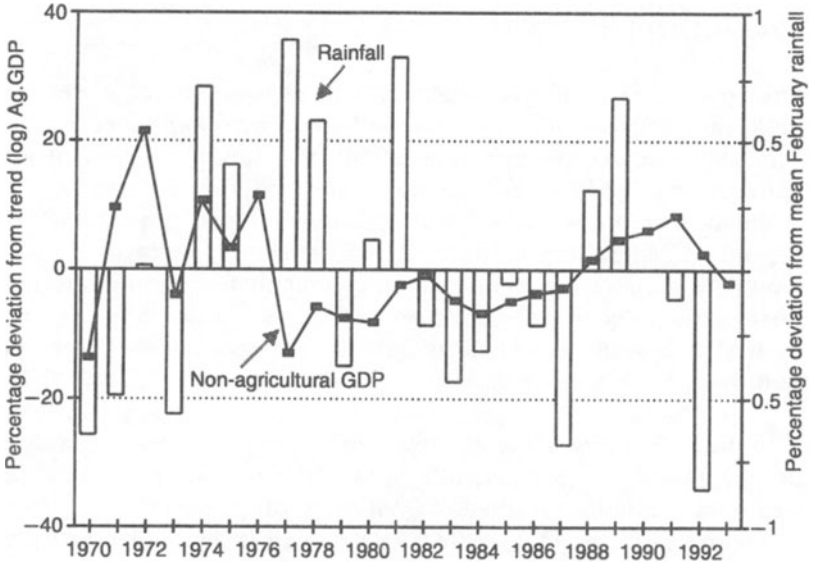

Figure 11.2 Movements in non-agricultural GDP and rainfall [a], 1970–93

Notes:
[a] National February rainfall

despite the fact that reduced output results in higher prices, thus dampening the impact of drought on value measures. The impact on non-agricultural GDP is less clear, with GDP performance being affected by other factors, especially in the years immediately preceding and succeeding Independence in 1980. However, the particularly severe drought of 1991–2 contributed to year-on-year declines of 5.8 per cent in GDP at factor cost, 18.4 per cent in agricultural GDP, and 8.5 per cent in industrial GDP (plus 9.5 per cent in manufacturing GDP), exacerbating the short-term adverse impact of major economic reforms (see below). Maize production alone fell by some 77 per cent year on year, and by some 82 per cent compared with average production in 1989–91.

A more formal examination of the relationship between rainfall and sectoral performance using ordinary least squares (OLS) regression analysis indicates that the performance of all sectors of the economy was positively and statistically significantly correlated with rainfall during the 1980s but not during the 1970s. This probably reflects the increased vulnerability of the agricultural sector to drought between

the two decades, as discussed below, and the strong intersectoral linkages which then transferred these impacts to the rest of the economy. Given the decade of largely below-average rainfall following higher than average rainfall in the 1970s, the regression results also provide evidence in support of the argument that economic aggregates are more sensitive to excessively low than to excessively high rainfall.

The increasing vulnerability of the agricultural sector is partly explained by changes in its structure. Zimbabwe is highly diversified, both climatically and ecologically, with five distinct natural regions. The agricultural sector is characterised by a dualistic system of production, split between commercial farmers, predominantly located in the more favourable land areas, and communal resettlement farmers, largely situated in the more arid regions which experience drought conditions more frequently. During the 1980s, the communal sector became an increasingly important producer of certain key food and industrial crops, particularly maize and cotton, while commercial producers diversified into other crops. Yet statistical analysis indicates that, although both commercial and communal production are sensitive to drought, communal maize production fell by more than twice as much as commercial production for every 10 per cent

Box 11.2 Adaptive behaviour

The extent of the impact of a drought shock on an economy is partly determined by the adaptive behaviour of individuals and households, private-sector enterprises and government institutions in responding to the drought, and the implications of their actions. This adaptive behaviour is triggered by a number of signals including changes in the availability of water and water-intensive products, prices (to the extent that these are not controlled) and employment opportunities, many of which can be captured in terms of short-term supply and demand elasticities.

The various economic agents have a range of response options, with differing time-frames for implementation and associated costs, both to the agents concerned and to the economy as a whole. The range of available and recognised responses depends on such factors as the political and economic setting, the size and nature of the financial system, levels of education, and the predominant religion and culture of the society (including peoples' attitudes to self-improvement and to their environment) (Killick, 1995). Responses are also influenced by perceptions about the impact of drought, with

limited understanding or acknowledgement of the impacts of a drought shock effectively limiting responses.

Households and individuals are typically the most flexible agents, responding quickly to changed circumstances, with a range of largely temporary measures. Behavioural responses of the poorest households, commonly referred to as coping mechanisms or survival strategies, often entail at least a partial withdrawal from the money economy, both in the supply of labour and in consumption. Such responses are well documented. Higher-income households may also change their patterns of expenditure, away from luxuries and towards basic staples. Changes in consumption patterns may be accompanied by adjustments in saving patterns. However, households' and individuals' abilities to adapt are not constant over time: economic development and the accompanying specialisation of labour and breakdown of community and extended family ties can reduce the ability to adapt to temporary shocks.

Private-sector enterprises may employ a range of temporary and permanent measures in response to water shortages and associated downturns in the overall economic climate. Measures such as cuts in the labour force are associated with a decline in output caused by input shortages or reduced demand, and are viewed as temporary measures. Other immediate responses, such as, for example, reductions in levels of water consumption or more efficient stock management (effectively reducing the level of working capital) also constitute more efficient operating practices, and drought may trigger their introduction on a more permanent basis if there is sufficient economic incentive or social motivation. The benefits of some permanent measures, typically the more costly ones, are felt only with a time-lag and so require enterprises to take a longer-term assessment of the impacts of drought. For example, the introduction of water-recycling equipment or the relocation of a factory plant to an area of higher rainfall can take several years. Some entail indirect frictional costs. For example, a shift in sourcing of inputs implies not only a potential increase in direct costs but also possible short-term disruptions to production while machinery is recalibrated to take into account differences in quality of the new input.

Public-sector responses concern not only relief and rehabilitation activities but also monetary and fiscal policy adjustments, as indicated elsewhere in this chapter. The government's response will also influence the adaptive responses of other agents via, for example, the extent of public assistance in maintaining supplies of raw materials,

credit policy in the face of increased agricultural loan defaults, and tax changes implemented as a consequence of the drought. The government's ability to respond is partly constrained by its need to demonstrate continuity of policy and, thus, its future credibility to both domestic and foreign investors and creditors, particularly to the extent that such groups fail to understand fully the macroeconomic consequences of drought.

decline in rainfall over the period 1983–92. Such fluctuations, combined with the communal sector's increasing share of production, mean that two key agricultural crops – the basic food staple and the main input into the third largest manufacturing activity in the country – are becoming increasingly vulnerable to drought.

Other aspects of the productive impact of drought are the relative rates of recovery of different sectors and sub-sectors of the economy. Evidence indicates that in Zimbabwe the agricultural sector recovers relatively quickly in the aftermath of drought, but that the manufacturing sector recovers more sluggishly. For example, agricultural output picked up again very quickly in the aftermath of the 1991–2 drought, with good rains in 1992–3 resulting in reasonably good crop production, especially of maize, which rose to its highest level since 1988. But other sectors performed far more weakly, with manufacturing production declining by a further 8.3 per cent in 1993, to its lowest level in real value terms since 1987, while GDP overall increased by only 0.9 per cent.[3] The delayed recovery of the manufacturing sector reflects continuing supply difficulties as well as a generally lower demand for both intermediate and final consumption goods in the post-drought period. This implies a need to continue measures to support recovery in the manufacturing sector, even after the improvement in climatic conditions.

EXPENDITURE ASPECTS

Drought shocks also have significant potential implications for levels of consumption, investment and savings. *Ceteris paribus*, a drought shock would be expected to reduce aggregate real earnings, because of declining employment opportunities and nominal wage increases below the rate of inflation. The knock-on effect on private consumption would then be determined by a number of factors, including the

ability of households to dissave and the extent to which public drought-related expenditures resulted in higher levels of enforced domestic savings. Savings in the form of assets such as livestock could also be reduced, although these losses might not be reflected fully in the national accounts. Potentially high levels of private dissaving, the uncertain economic climate and, possibly, higher interest rates (see below), could deter new investment. Public resources originally intended for productive investment could also be diverted to finance the drought relief operations, with further declines in investment. In addition, drought could reduce investment in human capital investment, such as through schooling, at least on a temporary basis.

In the case of Zimbabwe, OLS regression analysis for the period 1980–92 indicates that the ratios of both total and private consumption to GDP increased during periods of drought, while that of savings to GDP declined. This suggests that households do, in fact, meet some consumption from private savings, as confirmed by observed household behaviour, although part of the dissaving reflects increased public-sector borrowing. However, there is some switch in relative consumption towards food and away from basic consumer goods, such as clothing and footwear. During the particularly severe 1991–2 drought, the knock-on impact of changes in consumption patterns on the manufacturing sector was reinforced by the increased availability of second-hand items, such as agricultural implements. Late acknowledgement of the scale of assistance required, several revisions of programme design, donor procurement requirements and general bureaucratic inefficiency also curtailed severely the potential role that the drought relief programme could have played in offsetting the decline in demand (Robinson, 1993).[4]

The 1991–2 drought, in conjunction with the economic and structural adjustment programme (ESAP), had a particularly severe impact on domestic savings. The ratio of savings to GDP declined to 10.2 per cent (GOZ, 1994), occurring entirely in the private sector. Public dissaving fell marginally, from 5.8 per cent to 4.5 per cent of GDP (World Bank, 1993b), but nevertheless contravened the government's objective of reducing public borrowing from the private sector as part of the effort to stimulate increased private-sector activities. The data also suggest that the private sector drew on savings to maintain consumption in 1992. However, in 1993, consumption collapsed by a massive 9.3 per cent year on year, apparently largely because of a decline in private consumption, while private savings were rebuilt. Relatively constant levels of consumption in 1992 may, in fact, simply

reflect an increase in recorded consumption, while part of the decline in 1993 may reflect a drop in recorded consumption as rural households again increased levels of self-provisioning. However, the fall in 1993 may also reflect some delayed impact of the drought as well as a limit to the extent to which some households were able to run down savings to maintain demand.

Regression analysis for the period 1980–92 also indicates, somewhat surprisingly, that the ratio of gross domestic fixed investment to GDP typically increases during periods of drought. However, this finding probably reflects the fact that investment was already constrained during the 1980s by a number of factors, in particular import controls, and that these factors rather than drought-related cutbacks in investment proved binding even during periods of drought. The 1991–2 drought, which occurred after significant trade liberalisation, hit investment far more severely, resulting in a 6.9 per cent decline in gross investment in 1992 despite a slight rise in central government investment (see below), although rates of investment increased the following year.[5] Evidence of government and private-sector behaviour also indicates a shift into drought-related investments during periods of drought (see below).

Formal-sector employment data suggest that drought has only a marginal impact on levels of employment, but the impact on the informal sector, where workers are not protected by employment laws, is likely to be far greater. Droughts also increase levels of underemployment, particularly in the informal agricultural sector.

FINANCIAL AND MONETARY ASPECTS

Zimbabwe has a highly developed formal-sector financial market, with a particularly large non-monetary sector, most of which was created before Independence in 1980. Agricultural credit operations constitute an important part of overall lending transactions, and during the 1980s the government adopted measures to encourage the expansion of the financial sector's coverage to communal areas, with a number of institutions employing mobile units for this purpose from 1985 (Harvey and Jenkins, 1993). However, there is virtually no informal market, apart from a widespread network of savings clubs, and access to loans is likely to be relatively limited.

A drought shock could create inflationary pressures via increased food and agricultural prices, possibly leading to a tightening of

monetary instruments, in turn dampening growth of the money supply through increased credit constraints and higher interest rates. At the same time, it could generate a net increase in demand for credit as livelihoods and crops are lost, but a simultaneous reduction in credit availability because of increased rates of default. Coupled with a possible deliberate contraction of the monetary base, this could imply higher interest rates.

Evidence on the inflationary impact of drought in Zimbabwe is, in fact, inconclusive. Data for both 1983 and, in particular, 1992 indicate a rise in the rate of inflation, defined in terms of the GDP deflator, over each of the two previous years. However, both droughts coincided with substantive removals of price subsidies and controls, thus obscuring the impact of drought alone on the rate of inflation. Moreover, even in the absence of drought, anti-inflationary measures would have had to have been stepped up in 1992. Meanwhile, in 1987 inflation was well below the levels in succeeding and preceding years.

During the 1980s, the overall impact of drought shocks on Zimbabwe's financial markets and money supply appears to have been limited by tight controls, including enforced domestic saving. The more severe 1991–2 drought had a greater impact, in part because of the easing of financial regulations. The government was already pursuing a tight monetary policy prior to the onset of this drought, and the drought contributed to further rises in interest rates in 1992 and 1993 as government borrowing to finance relief efforts placed an additional strain on credit markets. Nominal increases in money supply were contained below the nominal increase in GDP as part of deliberate government policy, effectively tightening money markets even further. Thus, overall, domestic credit declined by 19.7 per cent year on year in real terms in 1992, despite increased demand for agricultural credit, although falling to a level only 1.8 per cent lower than in 1990. The credit squeeze restricted levels of expenditure and new investment, effectively contributing to the delayed economic recovery.

Government efforts to counteract the credit squeeze were focused mainly on agricultural credit markets (see Box 11.3), although these schemes had some implications for credit markets more generally. Containment of residential mortgage interest rates also effectively eased the impact of the drought on individual households, thus preventing widescale default, although also reducing the funds available for new mortgages. However, its broader policy objectives prevented the government from intervening much further to ease the impact of the drought on credit markets.

Box 11.3 Agricultural credit

By Sub-Saharan African standards, Zimbabwe has a well-developed system of agricultural credit, described as 'broad, diverse and competitive' (World Bank, 1991a). However, it is heavily concentrated towards the commercial sector, with only 12 per cent of smallholders having access to credit in 1989 (World Bank, 1989). During the late 1980s, the agricultural parastatal, the Agricultural Finance Corporation (AFC), accounted for about 40 per cent of total agricultural credit, with a further 45 per cent provided by commercial banks and the remainder by finance houses and other institutions (ibid.). The agricultural sector also accounts for a substantial part of overall commercial lending with, for example, some 20–24 per cent of the total advances of the commercial banks made to the commercial agriculture sector in 1991.

Available evidence suggests that droughts contributed to increased levels of lending to the agricultural sector in both 1983 and 1987. In the aftermath of the 1991–2 drought, however, preliminary evidence indicates that increases in agricultural credit were constrained by credit shortages and high interest rates. Some measures were taken to ease these credit difficulties. In particular, the Reserve Bank advanced Z$400m to the commercial banks and the AFC under a Loan Rescheduling Emergency Fund to assist farmers who had suffered crop losses. A further Z$75m was advanced to the Commercial Farmers' Union to provide three short-term loans at very low interest rates. The credit requirements of communal and resettlement farmers were also partly eased by the provision of free agricultural recovery packages, financing 0.5 hectares of production per household, and food distribution programmes. However, some of the credit available under these various schemes was not drawn upon, because high costs of borrowing deterred would-be borrowers. For example, as of October 1992, only moderate interest had been reported in a private-sector foreign-exchange facility made available for the import of spare parts, equipment and consumables for water drilling and agriculture, transport spare parts and power generators. Similarly, farmers were reluctant to make use of finance made available by the Cold Storage Commission to maintain a nucleus breeding herd (AMA, 1992). These examples illustrate how prevailing economic circumstances can partly determine the effectiveness of relief programmes.

EXTERNAL SECTOR IMPLICATIONS OF DROUGHT

In theory, a drought shock would be expected to create balance-of-payments difficulties as drought-related imports increased and exports declined, in turn constraining non-drought-related imports. Drought shocks could also imply increased external borrowing, via both the deteriorating external balances and increased domestic budgetary difficulties, with implications for future levels of debt servicing and, potentially, economic growth. In practice, during the 1980s droughts appear to have had relatively little impact on the overall level and pattern of exports and imports or external debt in Zimbabwe, as discussed below, despite the fact that agricultural exports account for around a third of exports. However, the 1991–2 drought was somewhat different.

The severity of drought shocks aside, one of the most critical factors explaining the impact of various droughts on Zimbabwe's trade balance has been the level of maize stocks. Zimbabwe entered both national droughts of the 1980s with significant maize surpluses. Indeed, in both 1983–4 and 1987, the country continued to export maize while meat exports increased, together helping to maintain overall levels of food exports while food imports remained approximately constant. Other agricultural exports were also largely unaffected, with cotton lint exports, for example, continuing on a gradual upward trend in both volume and value terms during 1983–4. Export earnings were further sustained in 1983 by relatively good prices for the country's two largest exports – gold and tobacco.

The maize stock situation at the time of the onset of the 1991–2 drought was hugely different and, in part as a direct consequence, the drought had a far greater impact on the balance of payments. In mid-1991, a deliberate policy of reducing maize stocks had been introduced as part of efforts to cut substantial cereal parastatal losses, based on the assumption that Zimbabwe would be able to import cheap yellow maize in years of domestic deficit, using foreign-exchange earnings from tobacco. However, over-optimistic estimates of production in 1991 had led to excessively large stock reductions, and by mid-1991 there were already indications of a need to import some maize before the 1992 harvest, even on the assumption of a normal harvest (Jones 1995). In the event, a total of 1.9 million tonnes of maize was imported in 1991–2 and 1992–3, with some US$300m in foreign exchange required to meet the cost of maize imports in 1992–3 alone.

Total drought-related imports were estimated at some US$400m in 1992, and a further US$280m in 1993 (World Bank, 1993b), including imports of, for example, cotton lint and sugar to maintain supplies of manufacturing raw materials, as well as maize and other inputs to the drought relief programme. These were partly offset by declines in non-drought-related imports, estimated in late 1992 at a value equivalent to over half the cost of direct drought-related imports over the period 1992–4 (World Bank, 1992), because of the domestic recession, credit constraints and the imposition of an additional 10 per cent tariff to dampen imports.[6] However, considerable export losses were also incurred as a direct consequence of the drought. Exports declined by US$166m in 1992, with gross losses from drought-related exports estimated at some US$300m in the same year (World Bank, 1993b). Reduced exports of four crops – maize, cotton lint, tobacco[7] and sugar – alone resulted in an estimated US$127m loss in export earnings, after adjusting for relative price movements. Further losses were incurred in 1993 because of the lagged recovery of certain crops, such as sugar, and many manufacturing products. Other exports also remained below normal levels as domestic stocks of crops were partly rebuilt.[8] Overall, Zimbabwe's external current account deficit increased by US$145m in 1992, to US$605m, or 14 per cent of GDP. The invisible trade account also deteriorated, because of drought-related transportation costs as well as higher interest payments. However, the current account deficit dropped substantially in 1993, to US$116m, or 3 per cent of GDP.

Donors played some role in alleviating the balance-of-payments difficulties experienced in 1992 by providing considerable external assistance. The total level of grant assistance to the country more than doubled between 1991 and 1992 to some US$242m, part of which was provided as valuable balance-of-payments support. Substantial international assistance was also provided in the form of loans. Disbursements of medium-and long-term loans also increased by almost 40 per cent, to US$756m (World Bank, 1993b), although these figures include increased aid in support of the ESAP. By January 1993, over a million tonnes of food aid had also been pledged, including some 350 000 tonnes for free distribution (Borsotti, 1993). Assistance was also provided to meet other components of the relief and rehabilitation programme, including those relating to water supply, health and the logistical costs of food distribution. However, the international implementation of commitments was relatively slow, thus delaying some aspects of the relief programme and obliging the government

to meet a large part of its initial requirements, particularly of maize, through commercial imports (Clay *et al.*, 1994).

The 1992 drought had a far more severe impact on external debt stocks than had the 1982–3 and 1987 droughts because of the substantial deterioration in the balance of payments. Total medium-and long-term debt increased by 24 per cent in nominal terms between 1991 and 1992, and by a further 9 per cent between 1992 and 1993. Short-term external public debt also increased, to US$396m, or 7 per cent of GDP, in 1992 (GOZ, 1994). Although loans extended in support of the ESAP were partly responsible for the increase in debt, the drought also played a role. This is reflected for example, in, the fact that the debt – service ratio increased from a forecast level of 21.9 per cent to an estimated level of 32.3 per cent in 1993, although it was expected to decline slightly in 1994 and in subsequent years after short-term debt obligations had been met. Increases of this magnitude in external debt have important medium-term implications, both increasing the foreign-exchange earnings required to service the debt, and reducing the government's ability to rely on external borrowing to finance budgetary deficits.

DROUGHT AND PUBLIC FINANCE

Drought can have several important impacts on public finance. On the expenditure side, government-financed relief operations increase both recurrent and, if decisions are taken to step up water-related investments, capital expenditure in certain sectors, either as additional expenditure or by partly displacing planned expenditure. At the same time, a government may have to meet higher losses incurred by agricultural marketing and credit parastatals, assuming higher rates of default on agricultural loans and increased operating difficulties. Revenue could also be adversely affected as lower levels of economic activity reduced direct and indirect tax revenues. Although such losses may be partly offset by increased flows of external grant aid, this is unlikely to offset increased levels of expenditure. In consequence, the government may face increasing budgetary pressures, which it will be obliged to meet by increasing the money supply, running down foreign-exchange reserves or increasing levels of borrowing either domestically or, if private savings are not available, externally. These options have potentially significant knock-on effects. The creation of base money is inflationary. Domestic borrowing exerts upward

pressure on interest rates and can result in a credit squeeze. Foreign borrowing can result in an appreciation of the exchange rate, reducing the price of imports and increasing that of exports, as well as involving future drains on the economy via higher debt-servicing costs. A run-down of foreign-exchange reserves is limited by the very size of those reserves and entails an appreciation in the exchange rate, with possible associated risks of capital flight and a balance-of-payments crisis (Fischer and Easterly, 1990).

Revenue

In comparison with other SSA economies, Zimbabwe has a relatively high tax ratio, standing at some 30 per cent of GDP during the 1980s. Since 1983, fluctuations in total central government revenue and direct tax revenues have generally mirrored overall trends in the economy, but fluctuations in levels of indirect taxes on goods and services have been correlated with climatic conditions. This result is fairly intuitive: a drought shock reduces demand for non-drought-related domestic and imported intermediate and final consumption goods, in turn reducing revenues raised on their respective sale and import. At least under the tax structure prevailing in 1992, the drought also led to a shift in expenditure towards goods not covered by sales tax.[9] Import duties are also unlikely to be charged on drought-related imports, except perhaps on some privately financed items.

Evidence relating to the impact of the 1991–2 drought on levels of government revenue requires more detailed examination, as the true impact was partly hidden by the effects of the ESAP. In particular, although central government revenue rose by 1.9 per cent in real terms in 1991–2 to a level 14 per cent higher than expected, this was largely a result of increased import-duty collections occurring because of the expansion in imports in 1991 which, in turn, followed the expansion of an Open General Import Licence scheme and the liberalisation of certain imports. At the same time, taxes on incomes and profits declined by 9.7 per cent to form only 45 per cent of central government revenue. In 1992–3, in the absence of further boosts to import revenues, central government revenue fell by 9 per cent, although to levels only marginally lower than planned. Half-yearly figures were even worse, because of delays in the payment of taxes, partly as a consequence of the drought. Tax revenues picked up only in the last quarter of the financial year, with the earlier delay contributing to

increased government borrowing as well as some cutbacks in expenditure (see below). In order to boost tax receipts, the government delayed a 5 per cent reduction in the sales tax on luxury goods which had been scheduled for introduction in July 1992.

Public Expenditure and Net Lending

Regression analysis for the period 1983–92 suggests that central government recurrent and capital expenditure and net lending are adjusted in line with movements in GDP, with reductions in government expenditure during periods of weaker economic performance, effectively including during periods of severe drought, but without additional adjustments in response to drought shocks. Cuts in government spending are not undesirable *per se*, but drought-related cutbacks are largely unplanned and may not be consistent with longer-term policies. Instead, areas of expenditure most affected may be those where temporary cutbacks are easiest to achieve, such as in social expenditure, as demonstrated in the case of Zimbabwe.[10] The implementation of non-drought-related investment programmes may also be postponed, without any analysis of the longer-term economic costs of such delays. Furthermore, such cutbacks occur simultaneously with increased drought-related expenditures, implying additional reductions in non-drought-related expenditure.

Such reallocations are demonstrated by the sheer size of Zimbabwe's 1991–2 drought relief and rehabilitation programme. In 1991–2, the government incurred almost Z$600m in drought-related expenditure, including Z$500m on maize import subsidies, representing some 2 per cent of GDP and over 6 per cent of total recurrent and capital government expenditure. In the same year, real recurrent and capital expenditure fell by 4.9 per cent overall, as part of a broader government objective to reduce the budget deficit, implying a decline in non-drought related expenditure of almost 10.7 per cent.[11] In 1992–3, drought-related expenditure amounted to some Z$1.5bn, representing some 14 per cent of total planned recurrent expenditure, and 4.6 per cent of GDP (GOZ, 1994). Grain subsidies accounted for almost half the total, with the remainder including programmes to provide agricultural inputs and tillage facilities to communal farmers, a supplementary feeding programme for children, a public works programme, and the provision of water facilities. Since much of this drought-related expenditure was recurrent rather than capital expenditure, it would not generate much future government revenue against which to

offset the additional recurrent spending required to service and repay the debt accumulated as a consequence of the drought.

A further impact of the 1991–2 drought concerns an apparent shift in emphasis of the public-sector investment programme. In 1990, all new investment projects had been frozen temporarily, with the exception of those with 'national priority', while a backlog of half-finished projects was completed. This policy was continued in subsequent budgets. However, the drought forced a change in the planned portfolio of new projects. The implementation of some projects already planned under the Second Five-Year National Development Plan was brought forward and new, previously unplanned, projects were introduced. In terms of capital expenditure, Z$213m in drought-related expenditure was included in the 1992–3 budget, Z$84m of which was for the drought-related water supplies programme alone. In 1993–4, a further Z$280m was allocated for the construction of ongoing dam and irrigation schemes, and the agriculture and water sectors were accorded higher priority in government investment plans to help facilitate economic recovery.

The 1991–2 drought also undermined government efforts to reduce parastatal subsidies as part of the structural reform process, thus putting further pressure on non-drought-related recurrent expenditures. Although available data on long-term central government loans to these institutions indicate little discernible relationship between marketing board or AFC borrowing operations and climatic conditions, short-term borrowing increased markedly year on year in both 1983 and 1992, partly reflecting increased losses as a consequence of drought, at least in 1992 (see Box 11.4).

Government Budget Deficit Financing

The droughts of the 1980s resulted in higher levels of borrowing and lower levels of repayment than had been planned at the beginning of the relevant fiscal year, but the extent of borrowing was apparently constrained by deliberate government policy relating to the budgetary deficit.

Evidence from the aftermath of the 1991–2 drought suggests that severe drought can have important implications for government borrowing. In financial year 1992–3, the government incurred a budget deficit of 11.2 per cent of GDP, excluding aid, compared with a forecast level of 6.7 per cent in 1992 and 5.4 per cent in 1993 (World Bank, 1991b). Furthermore, the slow rates of disbursement of foreign

Box 11.4 Government parastatals and the 1991–2 drought

The Zimbabwe agricultural marketing boards, especially the Grain Marketing Board (GMB), have imposed a particularly heavy burden on government finance, which is legally obliged to meet parastatal losses. However, with the notable exception of the 1991–2 drought, GMB losses have typically been associated with particularly high operating costs during years of surplus rather than deficit production, incurred through the maintenance of large maize stocks. The 1991–2 drought was somewhat different, occurring as it did during a period of cereal market reform and substantive revisions in maize stock policy. Imported maize was initially sold at substantially subsidised prices of Z$550–Z$950/tonne and, although the selling price was subsequently adjusted to reflect operating costs, the GMB deficit increased more than sixfold in 1992–3 to Z$315m, compared with a target level of under Z$30m. The GMB's financial position deteriorated further in 1993–4 as stocks were deliberately rebuilt, producer prices increased, and real nominal interest rates on GMB borrowing rose (Jones, 1995). As a result, the GMB incurred losses of over Z$1bn in the 1993–4 marketing year (*The Herald*, Zimbabwe, 1 July 1994).

The Cotton Marketing Board (CMB), the parastatal with a monopoly over the production and marketing of cotton, both domestically and abroad, and the source of credit to cotton producers, also faced severe financial problems as a consequence of the 1991–2 drought. In 1992, only 60 000 tonnes of cotton were produced, well below the CMB's normal intake of 200 000 tonnes, thus necessitating imports. Once again, the product was then sold at subsidised prices to assist spinners and avoid large-scale retrenchment. By mid-1992, this had already resulted in estimated deficits of Z$30m for local and Z$69m for imported lint. Owing to continuing drought-related difficulties, including further subsidies of imports, increased arrears on loans extended to farmers and the cost of the extension of 100 per cent credit schemes for cotton packs as part of the drought rehabilitation process, the CMB made an estimated trading loss of Z$70m for the marketing year 1992–3 overall.

The Agricultural Marketing Authority (AMA), in its role of financing the working capital requirements of the agricultural marketing boards, also increased its net borrowing from Z$470m in March 1992 to $1.4bn in February 1993, largely to finance the increased drought-related needs of the GMB and the Cold Storage

Commission. Some Z$900m of this was financed by local commercial and merchant banks, a further Z$340m from AMA bills and bonds, and the remainder from non-bank and external sources.

The existing financial difficulties of the Agricultural Finance Corporation (AFC) were also compounded during the aftermath of the 1991–2 drought by further increases in arrears, high commercial rates of interest and simultaneous efforts to limit the government's subsidisation of credit. Between January 1992 and June 1993, some Z$16.4m of payments due on 1991–2 loans were not repaid, equivalent to over 30 per cent of new loans advanced in 1992–3. As a consequence, in 1992–3 new loans to the communal sector fell back to only 15 per cent of their 1986–7 peak and to their lowest level since 1980–1 in real terms. At the same time, stocks of long-term loans increased, presumably reflecting delayed payment of arrears or defaults. Liquidity constraints also forced the AFC to delay its 1992–3 lending operations from the usual starting date in April to July. In mid-1992, the decision was taken to make no new long-term capital loans in 1992–3. The AFC was also expected to face some difficulties in meeting demand for credit in 1993–4 (CFU, 1993).

Finally, it is worth noting that the impact of the 1991–2 drought was not confined to agricultural parastatals alone. The National Railways of Zimbabwe also ran a deficit in the subsequent financial year, owing to increased operating costs as a direct consequence of the drought-related import programme, which, among other impacts, obliged it to hire wagons from South Africa and elsewhere (EC, 1993).

assistance exacerbated budgetary difficulties, with a shortfall of Z$539m in expected loan and grant receipts. These delays partly reflected the impact of the drought on non-drought-related aid, as the drought reduced imports under various import schemes to which the disbursement of certain assistance was tied (World Bank, 1993b). In addition, external as well as domestic tax receipts were heavily bunched towards the end of the fiscal year, placing further pressure on the government to finance short-term expenditure. To avoid strong inflationary pressures, the government chose to finance a large part of its short-term funding requirements through domestic and external borrowing rather than through an expansion of the money supply, implicitly relinquishing one of its objectives under the economic reform programme – namely, to reduce public-sector borrowing from the private sector in order to stimulate private-sector investment – in

favour of another.[12] Net domestic borrowing amounted to Z$1527m in 1992–3, considerably above the revised programme target (GOZ, 1994). This put additional pressure on money markets and interest rates, as well as adding to debt-servicing expenditure and increasing rates of monetary growth. Net foreign loans also increased from 0.5 per cent of GDP in 1990–1 to 3.9 per cent in 1991–2 and 4.2 per cent in 1992–3, partly to meet increased financing requirements arising as a consequence of the drought as well as in support of the ESAP.

DROUGHT AND ECONOMIC REFORM

The Zimbabwe economy had to contend in 1992 and 1993 not only with the impact of drought but also with the economic consequences of the relatively early stages of a structural adjustment programme which, during its planning phase, had paid little regard to the simultaneous possibility of a drought (see Box 11.5). The relationship between the process of structural adjustment and the economic impact of a drought shock is complex, raising a number of issues which can be organised, in the case of the 1991–2 drought in Zimbabwe, under five broad lines of enquiry.

(i) To what extent was the 1992 recession a consequence of the adjustment programme?
(ii) Did the drought impede the progress of the reform programme?
(iii) Did the drought exacerbate the adverse short-term impacts of reform?
(iv) Did the existence of a structural adjustment programme influence the nature and magnitude of impact of the drought or its relief measures?
(v) Does successful structural adjustment reduce the vulnerability of an economy to drought?

The 1992 Recession: Drought or Adjustment?

At the time of the onset of the 1991–2 drought, the implementation of the ESAP was approximately on schedule. However, in 1991 the economy had failed to meet certain ESAP targets, most notably falling 0.6 per cent below the targeted GDP growth rate. Some commentators believed that the economy was unlikely to meet targeted performance indicators in 1992 as well, and by the end of 1991 the

Box 11.5 Droughts, risk analysis and economic forecasts

Conventional explanations of Zimbabwe's economic performance typically include references to the weather, with the importance of both adequate rainfall and measures to reduce the economy's vulnerability to drought well recognised by the government and donors. Nevertheless, little progress appears to have been made towards incorporating the impact of drought and other potential exogenous shocks into the planning stage of government and donor development policies and projects. For example, the First Five-Year National Development Plan (1986–90) projected a real GDP growth rate of 5.1 per cent per annum over the plan period, in part based on the assumption of 'normal' rainfall. Although it was acknowledged that this and other underlying assumptions could 'be easily violated by circumstances beyond Zimbabwe's control', the implications of such circumstances were not explored. There was also no reference to drought in the outline of overall economic objectives, although the Plan was drafted very soon after the prolonged 1982–4 drought.

The government's structural adjustment Framework Paper for 1991–5 also contained no explicit reference to drought or other possible obstacles to reform. The Economic Policy Statement of July 1990, which succeeded the Framework Paper and laid out the main macroeconomic adjustments envisaged over the succeeding five years, identified weather conditions as well as transport difficulties and declining terms of trade as factors restricting agricultural growth. Given the importance of the agricultural sector to the overall economy, the Statement also pointed to 'the need for major structural change to reduce the vulnerability of the economy to factors that cannot be controlled' (GOZ, 1990). However, it failed to outline precisely what these structural changes were. There was also apparently little prior analysis by the Washington-based institutions of the impact that drought could have on the reform programme.

government was also beginning to warn of short-term adverse conditions as an unavoidable part of the structural adjustment process.[13] Yet, *ex post*, the drought was seen by both the government and the World Bank/IMF as the principal cause of the economic difficulties experienced in 1992 rather than as a factor exacerbating existing

problems. Cynics might even argue that the drought provided a convenient scapegoat for the country's economic difficulties, allowing the IMF and the World Bank, who were keen to achieve a 'successful' story of adjustment, to continue to hold up the example of Zimbabwe as a potential success story.

Progress of Reform

Structural adjustment programmes do not typically anticipate droughts in their design, although droughts can have major implications for the progress and ultimate success of reform programmes. The progress of a reform programme can be considered from three perspectives:

(i) The pace of implementation of various reform measures;
(ii) The degree to which private economic agents respond to the reform measures as expected; and
(iii) The extent to which economic targets are achieved.

The 1991–2 drought in Zimbabwe did not undermine the government's commitment to the ESAP, and perhaps even reinforced its resolve to persevere. However, it did impede the progress of adjustment, and a number of the original targets for 1992 and 1993 were not achieved. In particular, it hampered efforts to reduce the budget deficit, and to restructure the civil service and parastatal bodies.

The budget deficit as a percentage of GDP was significantly higher than planned as a result as already indicated, of increased drought-related expenditure and parastatal losses combined with reduced revenues in financial year 1992–3. This, in turn, frustrated government efforts to reduce domestic borrowing, and partly quashed the expected domestic supply-side response which was considered critical to the success of the ESAP. Government offtake from the economy amounted to around 50 per cent of GDP compared with a level, according to one commentator, of perhaps 39 per cent in the absence of the drought.

One question that should perhaps be considered is what the budgetary impact of the drought would have been in the absence of the ESAP. Without other cost-cutting measures, could even higher deficits have been sustained? Earlier analysis by Morande and Schmidt-Hebbel (1991) suggests otherwise, concluding that, while current public-sector deficits in Zimbabwe are sustainable during periods of

economic stability, they become unsustainable during periods of adverse macroeconomic shocks or significant devaluations. Thus, in the absence of the ESAP, the drought would probably have forced additional cost-cutting measures and even higher increases in the rate of domestic and external borrowing.

The trade liberalisation process continued on schedule despite the drought, with the pace of expansion of the Export Retention Scheme (ERS) in fact accelerating. However, the drought reduced the potential beneficial impacts of the trade policy reforms by effectively limiting the use of ERS entitlements. For example, the Commercial Farmers' Union reported that farmers had insufficient funds to utilise foreign exchange entitlements accrued on tobacco, cotton, beef and coffee exports under the ERS (CFU, 1993). The private sector, which had been expected to play a prominent role in the adjustment process, was also stymied by the drought, although this has not been entirely unfortuitous from the perspective of the ESAP. Liberalisation of the trade regime, as part of the ESAP, was expected to force inefficient producers out of business as the economy opened up and producers were compelled to compete internationally, eventually resulting in the closure of 10 per cent of manufacturing business by 1996 (GOZ, 1991a). The drought may have speeded up this restructuring process, as increased constraints on liquidity obliged producers to carry smaller stocks, shed surplus labour and adopt more cost-efficient methods of production.[14] But, via its effect on credit markets, it also significantly delayed investment and the refurbishment plans required for industry to attain international levels of competitiveness. Producers who had already embarked on large investment programmes faced rapidly increasing costs, while others postponed their plans.

Short-term Adverse Impacts of Reform

The drought is commonly regarded as having exacerbated the short-term adverse social impacts of adjustment. A Social Development Fund (SDF) had originally been established in November 1991 to help offset the latter through the provision of certain social welfare benefits and employment promotion schemes. However, its operations were delayed because of the additional administrative burden created by the drought relief programme which, like the SDF, was the responsibility of the Department of Social Welfare.[15]

Reform and the Impact of the Drought

Some aspects of the ESAP, although not wholly negative, had a direct bearing on the extent of the drought's impact and the effectiveness of relief measures. Most importantly, the deliberate rundown of maize stocks in 1991 exacerbated the impact of the drought, as already discussed. In addition, the ESAP had already contributed to some shift of production in the commercial agricultural sector away from maize into uncontrolled crops in 1991–2, further reducing the availability of domestic maize. There is also some evidence that the ESAP partly delayed the implementation of the drought relief programme as, for example, the Ministry of Finance postponed the funding of some relief efforts in an attempt to avoid violating the conditions of the ESAP (Thompson, 1993).

Government efforts to maintain tight monetary control over the economy, and the resultant increase in government borrowing, combined with the drought-related increase in demand for agricultural and other credit, also had implications in the recovery period by creating a significant credit squeeze. The agricultural sector benefited from several credit-related packages under the relief programme. The government also took some measures to prevent escalating financial difficulties at the household level, in part arising as a consequence of the drought. However, little action was offered to ease the financial difficulties faced by other borrowers, thus contributing to a 9.3 per cent fall in consumption in 1993, a year after the drought. Weak domestic demand, in turn, inhibited recovery in the non-agricultural sectors. On the positive side, liberalisation of the internal market may have mitigated the impact of the drought to some extent by stimulating private trade in food and agricultural inputs, thus reducing the necessity for government or donor interventions. Under the ESAP, the government had already relaxed regulations on the movement of agricultural produce, including the transport of goods in smaller trucks. Thus, for example, seed is reported to have been bought up by speculators and sold in markets commanding the highest price.

The existence of the reform programme and relationships with donors, in particular the international financial institutions, also played an important role in determining the nature and level of the international drought response. Zimbabwe's structural adjustment programme was widely supported by both bilateral and multilateral donors. As already noted, some commentators have argued that

Zimbabwe represented one of the last opportunities for the Washington-based institutions to demonstrate that structural adjustment could succeed. The drought therefore created considerable concern within the donor community about its effects on the ESAP and, as its scale and economic implications became more apparent, fears emerged that it could derail the reform efforts. Indeed, a number of donors apparently 'astounded' many Zimbabweans by freely admitting that they were supporting the drought relief programme primarily to keep the ESAP on course (Thompson, 1993). A number of countries rapidly restructured their assistance into programmes which also addressed drought-related needs, while increasing the levels of grants and loans. The World Bank and the IMF, concerned about the implications of the drought for agreements with the government, modified the performance criteria on which their continued assistance in support of the ESAP was dependent. The prior involvement of donors in the country also ensured that an effective economic monitoring system was in place, and supplied them with an existing framework within which to provide additional financial as well as food aid in response to the drought.

Future Droughts

The ESAP, if successful, could reduce the vulnerability of the Zimbabwean economy to future droughts by making it better able to withstand exogenous shocks. The government funded a considerable part of its relief efforts through increased domestic and external borrowing. During 1992, higher levels of domestic government borrowing reinforced pressures on interest rates and further squeezed credit markets, with significant implications for producers. However, the government had few alternatives, as it was already trying to stem monetary growth. It is to be hoped that, in future years, its budgetary position will also be strengthened, with any drought relief programme placing less strain on somewhat more plentiful budgetary resources. It is also to be hoped that the costs to the government of drought shocks will be lower, as the operating efficiency of parastatals is improved and they are better able to withstand drought shocks without incurring substantial losses.

The improved functioning of the market system by the removal of controls should also play an important role in allowing the economy to respond appropriately to drought shocks by improving the flow of information about supply and demand conditions.

CONCLUSIONS

The evidence presented in this chapter clearly indicates that, although low rainfall is not synonymous with famine in Zimbabwe, the economy is nevertheless vulnerable to drought shocks, particularly the more severe ones. However, there are a number of ways in which the macroeconomic impacts of drought can be mitigated.

First, in order to alleviate the balance-of-payments, external debt and budgetary impacts of drought, the country should maintain adequate, although not excessive, maize stocks. Indeed, the GMB has partly rebuilt its maize stocks, and increased stocks played a major role in reducing the impact of the 1994–5 drought by ensuring sufficient domestic supply, although maize exports were halted.

In terms of government policies more generally, perhaps the single most important measure for reducing the economic impact of drought is a reduction in fiscal and parastatal deficits which, again, the government is currently pursuing. This would ensure greater flexibility in the financing of any future relief operations and permit the use of several financing options simultaneously, thus effectively spreading and dispersing the impact of the drought.

Some crop diversification, as envisaged in current agricultural plans, could also reduce overall vulnerability to drought shocks, to the extent that different crops have different water requirements and varying periods of time when water supply is particularly critical, and their international price movements follow differing patterns. However, in contrast to recent trends, it is important to ensure that this diversification does not imply further reliance on the communal sector for the supply of critical food and agro-processing crops.

The 1991–2 drought experience has underlined the importance of careful management and allocation of renewable resources, in particular water, as a drought mitigation measure as well as a necessary component of a successful economic development strategy. Current demographic trends imply that the population will double by the second decade of the twenty-first century, placing greater strains on water and other resources. Only with greater acknowledgement of the economic impact of drought and of the importance of its mitigation will Zimbabwe be able to meet the broader challenge of more sustainable economic growth and eliminate the importance of drought as an external exogenous shock.

Past controls on the economy have, somewhat inadvertently, mitigated in part the impact of drought shocks, but at a high cost in terms

of their overall impact on economic performance. Future droughts will occur within the context of a far less regulated economy, thus allowing market forces to adjust more readily to their impact. Although it is not easy to speculate on the effects that a future drought shock of the magnitude of the 1991–2 drought would have in this new policy environment, it is conceivable that the short-term impact could be greater, as drought shocks become the principal binding constraint during periods of low rainfall. However, recovery may be more rapid as market forces increase the speed with which the shock runs through the economy. Furthermore, greater exposure to drought could increase awareness and thus the rate of adoption of preventative measures. The structural reform programme should also strengthen the economy, making it considerably more resilient to all exogenous shocks.

Finally, economic and relief instruments should not be regarded as separate and autonomous areas of policy action, as droughts have economic as well as relief implications. Instead, relief assistance and efforts to mitigate the economic impacts of drought should be planned together, as an integrated relief and rehabilitation programme. Unified responses also ease the transition from relief to rehabilitation modes, particularly if the assistance in response to drought is flexible and can be transferred between uses, as appropriate. Such economic instruments might include general balance-of-payments and debt relief and support for agricultural credit to sustain economic activities, as was indeed provided to Zimbabwe in 1992 and 1993, as well as food supplies. In the aftermath of droughts, both the government and donors could also do more to stimulate recovery in the non-agricultural sector, rather than immediately winding down their relief and rehabilitation efforts in the wake of favourable harvests.

Notes

1. This chapter is drawn from work undertaken as part of an ODI study on the 'The Impact of Drought on Sub-Saharan African Economies and the Options for the Mitigation of Such Impacts by National Government and the International Community', with the financial support of the UK Overseas Development Administration and the World Bank.
2. See Benson and Clay (1994) for a more detailed discussion of the hypothesised impacts of drought in different types of economy.

3. In certain manufacturing industries, such as grain milling and sugar refining, larger firms in fact *increased* production in 1992, undertaking a significant proportion of the processing normally done by smaller informal sector plants utilising locally-produced inputs. This reflected the fact that imported substitute inputs were largely channelled through the formal sector. Slaughterhouses across the country also faced a significant increase in throughput, although the profits were partly eroded by lower meat prices.
4. Permission had been granted earlier in 1992 for fertiliser producers to export supplies which, at that time, were expected to be surplus to requirements. It was only in the second half of the year that the government finalised its Agricultural Recovery Programme (ARP), providing insufficient lead time for local industries to manufacture the fertiliser to be provided under the programme. Instead, international tenders for the supply of fertilisers were issued and the role of local companies was limited to the distribution of imported material. The pattern of implementation of the ARP was replicated in the agricultural equipment subsector, under which tractors and tillage equipment were to be supplied (Robinson, 1993).
5. The findings of a triannual Confederation of Zimbabwe Industry survey on the state of the manufacturing sector provide some indication of the impact of the 1991–2 drought on private-sector investment. The July 1992 survey reported that only 7 per cent of respondents expected to authorise more investment expenditure on buildings, and 10 per cent to authorise the same amount of investment expenditure on buildings over the next 12 months as they had over the previous year, compared with equivalent figures of 39 per cent and 29 per cent in 1991. In terms of capital expenditure on plant and machinery, in July 1992 13 per cent of respondents stated that they expected to authorise more expenditure and 18 per cent to authorise the same amount over the following twelve months as they had over the previous year, compared with equivalent figures of 58 per cent and 23 per cent in July 1991.
6. Some evidence of this decline is demonstrated by the under-utilisation of Export Retention Scheme entitlements in 1992 and 1993, amounting to US$850m, or 46 per cent of total 1993 merchandise imports, by the end of 1993 (GOZ, 1993).
7. Tobacco yields are unaffected by drought, but the quality of the crops harvested can be reduced. In the aftermath of the 1992 drought there was a decline in tobacco orders from quality-conscious export markets, although these markets returned to Zimbabwe in 1993.
8. The government continued to export certain agricultural products, such as cotton, in 1992 to meet prior commitments even after it became apparent that the current year's production would be insufficient to meet domestic requirements. Subsequent re-import of such products created certain adjustment problems for industries as machinery had to be adjusted in accordance with the specific qualities of the imported inputs.

9. Within the food sector, a 12.5 per cent sales tax was charged on processed foods but none on fresh food commodities, while luxury commodities commanded a 20 per cent sales tax.
10. This is in contrast to evidence presented in a study by Bamberger *et al.* (1993), which suggests that social services generally fare better than other sectors during periods of cuts in public expenditure. The anomaly may perhaps be explained by the greater vulnerability of social sectors to budget cuts during periods of unplanned rather than planned expenditure, as such reductions are politically easier to implement and have little impact on short-run economic growth, despite their implications for future economic performance via their effect on human capital stock. Indeed, in the 1993–4 budget, real per capita recurrent expenditure on health and education was deliberately increased to its pre-drought level to counteract this decline (World Bank, 1993a), despite continued efforts to reduce overall levels of expenditure.
11. The figure of 10.7 per cent is a slight over-estimate as it is based on the assumption that the government undertook no drought-related expenditure in 1990–1.
12. Net domestic financing fell both in real terms and as a percentage of GDP in 1991–2, from 8 per cent of GDP in 1991–2 to 2.9 per cent in 1992–3, in part because of high domestic revenue receipts as well as increased external borrowing. However, the government was obliged to increase rates of domestic borrowing to 4.7 per cent of GDP, with an increase in bank borrowing from 1.3 to 2.6 per cent and of non-bank borrowing from 1.6 to 2.1 per cent. This exacerbated the situation in domestic credit markets, with significant adverse implications for the economy.
13. For example, the 1991 Budget Statement declared that the country needed to 'be prepared to face the short-term hardships which show up in the initial stages of the programme' (GOZ, 1991b).
14. Trade liberalisation also played an important part in reducing stock holdings as producers stopped buying the maximum amount of imported inputs that the availability of foreign currency would allow, as the availability of foreign currency increased (Robinson, 1993).
15. Had administrative constraints been less binding, the operations of the SDF might still have been constrained by financial difficulties as a direct consequence of the drought.

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12 Dancing with El Niño: Drought, the State and the Nutritional Welfare of Rural Children in Zimbabwe

Bill Kinsey

This chapter reports on a long-term study of economic and social adaptation among rural households in Zimbabwe.[1] One of the major purposes of the study was to assess the extent of stress induced in poor households by relocation to new surroundings, under the aegis of the government's resettlement programmes, at a time of acute drought in the early 1980s. Both objective and subjective indicators of stress were utilised, but the main objective indicator employed was the extent of malnutrition in children. The study incorporated the premise that tracking the nutritional status of young children over time using anthropometric methods would provide a reasonable indicator of the stress that families were experiencing because of repeated drought. Complementary modules of the study were able to identify the social and economic changes that accompanied alterations in nutritional status.

The first rounds of surveys – in 1982–3 and 1983–4 – and four subsequent rounds, were conducted in drought-affected seasons, including 1991–2, now said to be the worst drought in southern Africa in the twentieth century. Anthropometric and other surveys were carried out among the same 400 families over a twelve-year period beginning in 1983 and continuing to 1995. The population covered was based on a random sample of villages and a complete census within twenty villages in three resettlement schemes, one in each of the major agro-ecological zones in Zimbabwe suited to cropping.

The chapter characterises the outcomes of the nutritional assessments and relates these to the changing circumstances faced by rural households over time. By focusing on the longer-term social and economic responses to the early stages of a major government pro-

gramme aimed at altering the agrarian landscape radically, this study highlights the interactions between recurring food crises and the pace and nature of planned change. Through an examination of this change at times of drought, an attempt is made to take into account the role of food crises as, in Torry's (1984, p. 231) expression, 'prime movers precipitating social change'. This perspective recognises that the economic and social disruptions created by food crises retard or wreck development programmes, thereby compelling governments to respond with administrative and institutional initiatives aimed at coping with the crises.[2]

The findings presented here are aggregative in nature and reflect the fact that data collection continued from 1983 until March 1995, and analysis at the level of the individual resettlement scheme, village and household is continuing. In this sense, the findings reported in the chapter must therefore be considered as preliminary.

BACKGROUND

The Government of Zimbabwe is using agricultural resettlement as a major policy instrument to restructure both rural society and economy (Government of Zimbabwe, 1981; Mupawose and Chengu, 1982). Included among the broad objectives of resettlement policy is enhancement of the socioeconomic well-being of low-income households, including their ability to feed themselves adequately while at the same time earning a reasonable income from the sale of crops and livestock.

Resettlement is carried out under two programmes: (i) *the 'intensive' resettlement programme*, which began in 1980 and under which 18 000 households were originally to have been resettled over three years; and (ii) *the 'accelerated' resettlement programme*, a more recent initiative aimed at resettling much larger numbers of families on an 'emergency' basis. In terms of concept the two are much the same; however, they differ radically in implementation. The intensive programme is based on detailed planning, a procedure for settler selection, large amounts of specialist inputs, and provision of a wide range of infrastructure and supporting services to serve the new communities. Three optional 'models' under the intensive programme allow for individual farming (Model A); or co-operative farming (Model B); or individual farming centred on a 'core' estate (Model C).[3]

Originally, official criteria for the selection of settlers emphasised need and gave priority to refugees and displaced persons, and those

with no or inadequate land for subsistence. Settlers also had to be married or widowed, aged 25 to 50, and not in formal employment. More recently, the original set of criteria have been expanded to allow in those with farming experience and agricultural assets. Government policy, however, is aimed at moving individual households but not communities; and plots on resettlement schemes are allocated through a random draw, to minimise favouritism.

The resettlement programmes operate in a vacuum created by the continuing absence of a national policy on land tenure.[4] Thus, while settlers have to agree to disown any claim to land in the areas from which they come, they occupy and use land on the schemes only on the basis of a number of permits, the nature of which provides an as-yet-untested security.

The extent to which current resettlement programmes are able to meet the government's objectives will depend in large measure upon how quickly settlers begin to realise the economic potential of the new areas to which they have been moved. The speed with which they are able to do this will depend in turn upon how quickly new communities and institutions spring up to replace those left behind. It is well established that relocation, whether voluntary or not, is a stressful experience. Moreover, the stress can be expected to be greater where relocation has been done hastily and into an alien and/or hostile environment. Recurrent droughts in Zimbabwe have created a very hostile environment for many people.

Figure 12.1 shows the deviations of annual rainfall from the ninety-year mean 'normal' rainfall for the period since Independence. Over the sixteen years from 1980 to 1995, twelve seasons experienced below-normal rainfall. The three-year drought of 1982–4 killed large numbers of livestock and caused many of the households in the study to default on loans, which have still not been repaid. This same drought also taught national and local officials many valuable lessons about the design and implementation of drought-relief programmes. The 1987 drought can be characterised as a short, sharp shock which caught many state agencies unprepared. The 1992 drought is widely portrayed as the worst of the twentieth century.[5] The exceptionally dry conditions in January and February 1992 crippled agriculture as crops withered and livestock perished in their thousands. Rivers, dams and boreholes dried up in the middle of the rainy season, and the face of the countryside changed. Food queues became a common feature as supplies dwindled and prices rocketed. The government was reluctant to accept that a crisis was developing. Grain exports continued and

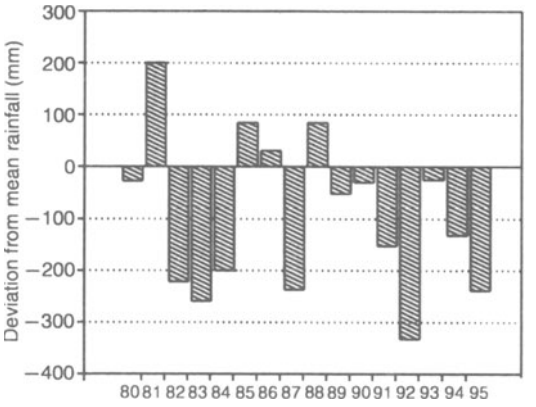

Figure 12.1 Annual departures from long-term average seasonal rainfall, 1979/80–1994/5.

Source: Meteorological Department.

permission was withheld for the timely procurement of maize within the region (Eicher, 1995). Once the crisis was acknowledged, however, the lessons from previous drought-relief efforts were very quickly applied and a massive country-wide programme was launched.

The effects of the 1992 drought were severe, pervasive and enduring. The overall contraction in the economy as a result of the drought was more than 6 per cent of GDP. With a population growing at 3.1 per cent a year, this decline implies that five years of growth at an average real rate of 5 per cent per annum would be required just to restore average per capita income to pre-1992 levels.

The 1995 drought was declared a national disaster at the end of July that year. It was estimated that half the country's population would require emergency feeding by February 1996, and that the food import bill would be some Z$1.9 billion[6] (*The Herald*, 29 July and 8 August 1995). The economy was expected to decline by 1 to 2 per cent in 1994/95 rather than grow at the earlier projected real rate of 5 per cent.

RELOCATION, STRESS AND NUTRITION: A CONCEPTUAL FRAMEWORK

Two basic concepts underlie the study and are used in parallel. The first of these is a general model of the determinants of nutritional

status, and the second is an adaptation of T. Scudder and E. Colson's relocation theory. The linking hypothesis is that nutritional status is determined by a complex of structural and behavioural factors, many of which are in a state of rapid flux; resettlement has altered some of these factors profoundly, but others only to a lesser extent. Resettlement has also changed the context in which most of these factors operate. The research reported here therefore addresses the social, economic and environmental changes that are occurring as a result of voluntary relocation, and an attempt is made to identify the impact of the relocation process on the factors that influence nutritional status in what Scudder (1981) defines as the development and transition phases of resettlement.

Relocation and the Manifestations of Hunger

The main theoretical formulation applied is relocation theory, developed by Scudder and Colson (Scudder 1973a, 1973b, 1975; Scudder and Colson 1979, 1981; Colson, 1971) in their long-term study of the adaptations and coping mechanisms they observed in the Gwembe Valley Tonga prior to, and following, their compulsory relocation in 1957–8 to make way for the flooding of Lake Kariba. A central concept of relocation theory is that rural communities undergoing resettlement respond in the same general fashion irrespective of sociocultural background and the policies of resettlement authorities. This pattern of response is typified initially by a clinging to the familiar and changing no more than is necessary to come to terms with new surroundings. This similarity of response is explained primarily by the multidimensional stress that accompanies *compulsory* removal.

As initially conceived, the theory was applied only to compulsory relocation because of the importance of externally-induced stress in shaping response patterns. Both Scudder and Colson maintain, however, that relocation theory can be generalised (personal communications, 1994). An attempt has been made therefore to apply the theory in the context of Zimbabwe's *voluntary* resettlement programme, probably the largest such undertaken to date in Africa, to ascertain whether sociocultural systems respond to resettlement in ways that are as predictable as relocation theory suggests. It was anticipated that more varied responses and stress patterns would be found in the absence of compulsion, and that these dimensions could contribute to refining relocation theory and improving knowledge on how to use resettlement as an instrument to achieve social and economic objec-

tives. The research, therefore, is concerned both with reactions to the relocation process itself as well as the adaptation to the new local environment in the initial development and transition stages.

The appearance of drought early in the resettlement programme drew attention to food supplies, consumption and human nutrition. The application of extended relocation theory is therefore related to a concept of hunger and society in which the functional manifestation of hunger at the individual level is regarded as the consequence of underlying causes at one or more of several different levels.[7] In this schema the signs and symptoms of hunger are the deaths or suffering of young children resulting from the immediate causes of interrelated malnutrition and disease. The underlying causes, however, are interactions among insufficient food security at the household level, inadequate childcare and inadequate basic health services. At a more basic level, hunger has its root causes in the resources available and the way in which they are allocated through an economic structure controlled by a political and ideological superstructure, and articulated through formal and non-formal institutions.

The emphasis on nutritional well-being in the study is also explained by the wish to use objectively quantifiable anthropometric measures, particularly of children's nutritional status, as an indicator of environmental and socioeconomic stress and to trace the impact of resettlement on the secondary and tertiary factors that influence nutritional status. As Malcolm notes (1974, p. 329):

> In human ecosystems, the impact of the environment is felt most forcibly on the growing child, particularly in the early years of life .... Of all the indices available to measure the impact of these [environmental] hazards, few are as informative or as sensitive as the variation displayed in the physical growth of children.

The kinds of interrelationship involved can be summarised using the human ecology schema employed by Malcolm, as in Table 12.1. In the general model of the determinants of nutritional status, the primary outcome indicator – nutritional status – is determined by two related factors at a secondary level: food intake and infection/health status. Each of these is, in turn, influenced by a complex of factors. Food intake is determined by food availability, which derives from economic factors (access to land, production, distribution, services and inputs, income and so on); social factors (knowledge, beliefs and

practices); and environmental factors. Many of these same factors will also impinge upon infection and health status.

Table 12.1 Ecological factors influencing nutritional status

Dimension	*Mediating factor*	*Indicative features*
Food availability		
Physical	Land	Terrain, fertility
	Climate	Rainfall, drought, flooding, irrigation
		Temperature
		Food storage and contamination
Biological	Agriculture	Types of food
		Insects and other pests
	Storage	Wastage, pests
Socioeconomic	Agriculture	Practices, inputs, land tenure and utilisation
	Education	Schools, community development, communications
	Food distribution	Storage, roads and transport, shops
	Health	Disease patterns and control, services
	Economic development	Income, employment, food costs and quality, urbanisation
	Political	War, social oppression, government policies
	Cultural	Breastfeeding, family size and child spacing
Food needs		
Physical	Climate	Heat, sweating losses, cold
Biological		Disease, age and rate of growth, pregnancy and lactation
Socioeconomic		Activity and work load
Food intake		
Physical	Climate	Competing demands on time
Biological		Disease, age and developmental status
Socioeconomic	Cultural	Ignorance, prejudice, traditional practices, maternal care, breast-feeding practices
	Food preparation	Facilities and opportunities, meal frequency

Source: Derived from Malcolm (1974).

Resettlement, Stress and the Role of the State

Fundamental in the hierarchy of influencing factors are macro political and economic decisions that have determined the shape and

course of the resettlement programme, and similarly determined the supporting services made available to it, thus indirectly influencing considerably the amount of stress to which settlers are subjected.

A model to summarise the processes at work might be constructed along the following lines. Relocation in the form of resettlement induces stress in part because it displaces the familiar by severing or weakening social bonds and spiritual associations, destroying the previous economic base and denying access to alternatives, and by placing settlers in an alien and unfamiliar landscape. The extent of stress experienced and its particular manifestations will depend upon a complex matrix of other factors: how drought-affected certain areas are; the mix of social groupings resulting from the random selection process; the presence or absence of a whole range of supporting services and infrastructure; the way in which communities develop methods for dealing with stressful situations; and the extent to which the relocation is seen as a positive choice guided by hopes of a better way of life. All these factors will, of course, influence the speed with which settlers recover from the relocation experience and begin to take positive advantage of their new economic base.

Both stress-inducing and stress-mitigating factors operate simultaneously in resettlement areas. While some factors, such as drought, are the consequence of uncontrollable forces, the state is the vehicle through which many factors are expressed. For example, many rural dwellers view resettlement as the logical culmination of the struggle for independence – for 'our land', a feature tending to enhance feelings of involvement and thereby reduce stress. Indeed, one of the motives of the state in redistributing land is to make concrete nationalist idioms about land rights (Moyo, 1995). On the other hand, the state generally has not implemented resettlement along popular lines.

Under the intensive programme, individual households (in the past, usually the poor) are removed from their home communities and deliberately resettled with a random collection of strangers, a factor which may tend to accentuate the stress of moving to a new location and prolong the adjustment period.[8] It could also be that the uncertainty of tenure in the new location is another source of stress for settlers, although there is little concrete evidence of this. What is clear, however, is that the mere provision of additional land may create an entire sequence of stressful disequilibria.[9]

One common way of coping with economic stress – migrating to towns for temporary employment – was prohibited for more than a decade by the regulations to which settlers agreed when they received

their plots. Only repeated drought and the growing default rate on seasonal agricultural loans persuaded officials to relax, in the early 1990s, the prohibition on non-farm employment.

A major factor affecting stress levels among new settlers during the twelve years of the study has been environmental: in 75 per cent of the years since independence, Zimbabwe has experienced below-normal rainfall.

Two comprehensive reviews (Berg, 1982; Tagwireyi and Greiner, 1994) confirm earlier partial or impressionistic findings that, despite being a food-surplus nation, Zimbabwe has a major malnutrition problem, particularly in rural areas. An implicit assumption of the resettlement programme is that access to land *per se* will solve the problem, yet at least four analyses (Kinsey, 1982, 1986; World Bank, 1982; Tagwireyi and Greiner, 1994) question such a simplistic relationship among land redistribution, rural welfare and nutritional well-being.

It is instructive therefore to outline the major state actions relating to resettlement and repeated drought and to sketch how these actions were themselves influenced by drought and responded to the adoption by Zimbabwe of an economic and structural adjustment programme (ESAP) in 1991.

First, of course, was the land redistribution programme itself. From an initially modest, but donor-approved, target of 18 000 families, the goal was escalated dramatically to 162 000 families. Large areas of land were acquired rapidly in the early 1980s, in part because the war of liberation had driven many white farmers to abandon land they were never to reclaim (especially when they would be compensated for it). Ironically, the 1982–4 drought made additional land available for the programme, as white farmers defaulted on seasonal loans, while at the same time the drought hampered the state's ability to proceed with land redistribution and supporting programmes.

It had been recognised all along that land redistribution alone was not enough. Thus, throughout the early 1980s, the state increased expenditure on services and facilities for small-scale farmers. In the sphere of agricultural credit, for example, the Agricultural Finance Corporation expanded the number of loans to smallholders from 18 000 in 1980–1 to 77 000 in 1985–6.[10] Yet, by 1990–1, the figure had dropped by more than half to 30 000, a change that has been attributed to management problems, high rates of delinquency, and the impact of recurring drought on risk and default (Eicher, 1995). In 1994, the number of loans declined to 23 000.

Similarly, resettlement areas have always had preferential access to agricultural extension services, with farmer – extension agent ratios lower than in other areas. Yet, whereas virtually every resettled family had regular extension contact in the early 1980s, by 1987 many families no longer had. And by 1992 contact between farmers and extension staff had returned to similar levels to those farmers had experienced before they were resettled. The reduction in extension coverage coincided with cuts in staff travel allowances so that many extension workers were unable to cover the distances among often widely separated villages.

Other production-orientated services were also provided. Improved marketing facilities were extended into resettlement areas and depots constructed for inputs and commodities.[11] Crop packs, consisting of seeds and fertiliser, were made available in the first season after resettlement and again following the more serious droughts.

Total real per capita expenditure on agricultural development services (excluding administration) reached a peak of Z$42.5 million in 1990/91 (Chisvo and Munro, 1994). By 1994–5, however, ESAP-induced economies and the continuing macroeconomic impact of the 1992–3 drought had contributed to a decline in the level of expenditure of some 26 per cent to Z$31.4 million.

Still other services were provided to enhance the welfare of resettled farmers and their families. Where possible, each village was supplied with a borehole to provide clean domestic water, a major factor in reducing water-borne diseases that interact with food intake to determine nutritional status. By the mid-1990s, however, many of these boreholes had become inoperable. The District Development Fund, which is responsible for maintaining the boreholes, has seen its operation and maintenance budget for rural water supplies slashed from Z$123 per water point in 1989–90 to only Z$47 in 1994–5.

Many other areas of service provision which would have contributed to improving nutritional status expanded rapidly in the years after independence. Most notable was the extension of health care facilities in the form of rural clinics and staff, and immunization and essential drugs programmes. As detailed by Chisvo and Munro (1994), all these programmes have suffered cuts:

(i) Real per capita expenditure on preventative health peaked in 1988 and has since declined;
(ii) The number of nurses per 10 000 head of population declined by 17 per cent between 1988 (its peak) and 1993;

(iii) The Drug Fund that underpins the Zimbabwe Essential Drugs Programme increased annually from 1980 to 1987 (when it was nearly 200 per cent higher than in 1980). After 1987, the fund declined annually until it reached a point, in 1993, where it was below 1980 levels in real terms; and

(iv) Per capita real recurrent expenditure by the Ministry of Health and Child Welfare increased by 47 per cent between 1984 and 1990, but declined in 1994 to a level 10 per cent lower than a decade before.

In addition, it is reported that, between 1991 and mid-1993, the health sector experienced a 'brain drain' of senior technical and managerial staff; and midwives, nurses and 200 doctors are said to have left the country (Logie and Woodroffe, 1993). User fees for health facilities, which had been reinforced in 1991, were suspended in March 1995 for the two lowest tiers of health facilities.[12]

The state has also acted in a number of ways in an attempt to mitigate the impact of repeated droughts, although the extent of its action has been impeded by the adverse consequences of serious drought on state revenue. Non-governmental organisations have therefore played a major role in most drought-relief measures.

A national Children's Supplementary Feeding Programme (CSFP) was established soon after independence and was reaching 250 000 children by 1984. Although CSFP was phased out in favour of a replacement programme that emphasised production of supplementary foods, it was reinstated on a much larger scale than previously in response to the 1992 drought (Tagwireyi and Greiner, 1994). During 1991–2, one million children under the age of five benefited from the scheme, and it was anticipated that at least 934 000 children needed supplementary feeding during 1995–6 (*The Herald*, 29 April 1995).

The main form of relief provided by the state is household income support in the form of food. The programme, operated by the Department of Social Welfare (DSW), is in two categories: (i) free food distributions for the elderly and the disabled; and (ii) distributions on the basis of participation in food-for-work programmes for all destitute families with able-bodied members (Hicks, 1993). In January 1992, some 873 000 people were assisted (out of 2.1 million registered for assistance). When numbers of those registered escalated, the official ration of grain was cut from 10kg to 5kg. By November, the number registering had reached 5.6 million, or 75 per cent of the rural population. Despite the scale of the programme, it has been described

as 'an admirable example of a rational, organized, and controlled response to a food shortage situation' (Hicks, 1993). Almost two million people nationwide were receiving drought relief in late 1994 (Eilerts, 1994). This figure had risen to 5.8 million by July 1995, when the cost of the drought relief programme for 1995/96 was estimated at Z$2 billion (*The Herald*, 29 July 1995).

Despite these demands, however, the core budget for DSW declined in real terms, from a peak of Z$19.6 million in 1990–1 to Z$13.0 in 1994–5. These figures compare with an estimated cost for the CSFP alone of Z$150 million for 1995 and 1996. In order to try to continue to provide the income support function of the drought-relief programme with reduced resources, the DSW announced in early 1995 a major transformation under which the programme will be turned into a grain-loan scheme.

In summary, then, the state has provided services in the areas of health, welfare, drought relief and agricultural support services. In terms of the framework outlined in Table 12.1, all of these should have acted to reduce child undernutrition, the chief indicator of stress in this study of resettlement areas. The scope of virtually all of these accompanying services increased until some time between 1988 and 1991, during which period all began to be curtailed. Only drought relief in 1992 and 1993 largely escaped budgetary exigencies. The remaining sections of this chapter will address the question of whether evidence of an adverse effect of ESAP-guided and drought-influenced budget trimming can be detected in the anthropometric data sets for the period 1983 to 1995.

STUDY SITES AND TIMING OF SURVEYS

To reflect differing physical environments, it was intended to select one resettlement scheme in each of Zimbabwe's five agro-ecological zones, referred to as natural regions (NRs); this was not possible, however. The criterion of choosing schemes settled in the earliest phases of the programme ruled out NR I, with its atypically high agricultural potential in terms of specialised cropping, because none of the earliest schemes was located in this region. At the other extreme, NR V – unsuited for arable production – was not included because of the poor security situation in Matabeleland in the early 1980s. Thus neither of Zimbabwe's regions of highest and lowest agricultural potential is represented.

Three Model A, intensive resettlement schemes ultimately were selected: Mupfurudzi in Mashonaland Central Province; Mutanda in Manicaland; and Sengesi in Mashonaland East. Some of the major features of each of the schemes are summarised in Table 12.2. The collection of data in the first round was concentrated into four periods of fieldwork spread over nine months. The first of these periods was June/July 1983, shortly after the very poor harvest of the 1982–3 season. The second was September 1983, immediately prior to the planting season for the 1983–4 crop. The third period was late November 1983, when many of the early planted crops had already begun to die because of a break in the rains and when food had run out or was running out. The final period extended for six weeks from mid-January until the end of February 1984. In the early part of this last period, food supplies were exhausted in many areas and late-or second-planted crops were dying; at the very end of the period, some crops were being eaten green from the fields in more-favoured areas and food supplies were improving.

Table 12.2 Selected characteristics of the three resettlement schemes included in the study*

	Scheme		
	Mupfurudzi	*Sengesi*	*Mutanda*
Province	Mashonaland Central	Mashonaland East	Manicaland
District	Shamva	Wedza	Makoni
Natural region	IIb/III	IIb/III	III/IV
Mean annual rainfall (mm/yr)	650–780	800	6–700
Area (sq. km)	34.5	8.4	43.9
Year settlement officially began	1980	1981	1981
Number of settlement villages	18	8	29
Number of settler households	563	289	575
Mean area available per household (ha)	61	29	76

Notes: * Characteristics as they were in 1983. All three schemes have subsequently been expanded through purchase of neighbouring commercial farms.
Source: Derived from information supplied by the Ministry of Lands, Agriculture and Rural Resettlement.

Since interviewing in the first round of surveys began in mid-1983 and the bulk of the interviews were done in early 1984, the great

majority of households in the sample would have lived on their schemes for at least two years by the time the interviews took place. Similarly, the majority of households in the sample would have had the opportunity to plant and harvest crops in two or three seasons. On average, households planting in 1980 would have achieved a good harvest, while the plantings of 1981 produced less-good harvests, and the plantings of 1982 produced poor harvests of most crops and no harvest of many. Most interviews were conducted while crops were being planted and subsequently tended in 1983–4. As interviews proceeded, early planted crops withered and in many cases died. Replanting was done only to have the second planting also wither, and in some cases third plantings were also being subjected to moisture stress. It was only the unusually late rains in 1984, towards the end of the normal growing season, that saved a proportion of the 1983–4 crop.

In the 1986–7 round of surveys, data collection began in late January 1987, when it was already clear that the season would be a poor one. Surveys were done continuously from January to the end of February. There was then a break of some three weeks in survey activity, and the remaining data were all collected during the first ten days of April. Once again, there were late rains in 1987 which saved some of the late-planted crops.

Data collection in the 1991–2 season was the most intensive of all rounds to that time. Surveying began in the first week of February 1992 and was complete by the end of the same month. It was clear even before data collection began that the season would be a disastrous one. Some farmers had already planted twice and lost all their seed, while no work was being done in the fields because standing crops were wilting; not even the weeds were growing.

Identical data collection procedures were followed in 1992–3, 1993–4 and 1994–5. Surveying began in the last week of January and ended in mid-March. The 1992–3 season was a relatively good one across the country, but the rains in 1993–4 were poor in many areas. The 1994–5 season displayed many of the characteristics of 1983–4: the rains began early, in October, and then ceased completely until Christmas, when heavy showers fell in some areas. The remainder of the season was also highly variable, and the yield impact of low rainfall was exacerbated in some areas by attacks of armyworm.

Seasons with subnormal rainfall do not always result in levels of food production inadequate to meet household needs. Despite the fact that two-thirds of the seasons from 1981 to 1992 had below-normal

rainfall, Table 12.3 makes it clear that most resettled households succeeded in feeding their families in three-quarters of those seasons. Invariably, however, household incomes and levels of food reserves were adversely affected.

Table 12.3 Crop failures and adequacy of household food production

	Scheme		
	Mupfurudzi	*Sengesi*	*Mutanda*
Crop failures			
Mean percentage of years in the period 1981–92 that inadequate food was produced to feed the family	17.8	23.6	20.7
Model percentage of years	16.7	25.0	25.0
Percentage of families producing inadequate food in 30% or more of seasons since 1981	24.2	53.7	60.9

Source: Author's surveys.

ANTHROPOMETRIC INDICATORS AND FINDINGS

The purpose here is to present in a comparative way the outcomes of the anthropometric assessments in each round of the surveys. Assessment of nutritional status is based on the concept that in a well-nourished population, one observes a statistically predictable distribution of children of a given age with respect to height and weight. Use of a standard reference population facilitates analysis of any given population over time or comparisons among sub-groups of a population. The most commonly used reference population, and the one used here, is the NCHS (National Center for Health Statistics), which is accepted for international use by the World Health Organisation.

Three standard indices of physical growth describe the nutritional status of children: height-for-age, weight-for-height, and weight-for-age. Height-for-age is a measure of linear growth. A child who is more than two standard deviations below the median of the NCHS reference population in terms of height-for-age is considered to be short for his/her age, or *stunted*, a condition that would reflect the cumulative effect of chronic undernutrition. If the child is more than three standard deviations below the reference median, the child is

considered to be severely stunted. A child between two and three standard deviations below the median is considered moderately stunted.

Weight-for-height describes nutritional status at the time the child is assessed. A child more than two standard deviations below the reference median weight-for-height is considered too thin for his/her height, or *wasted*, a condition reflecting acute, or recent, episodes of nutritional deficiency. As with stunting, wasting is considered severe if the child is more than three standard deviations below the reference median.

Weight-for-age (*underweight*) is a composite index of weight-for-height and height-for-age and thus does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his or her age because he or she is stunted, wasted, or both wasted and stunted.

The pattern of nutritional status common in rural Zimbabwe can be best understood by reference to Figure 12.2. The figure plots the distribution of the seven-year mean values for some 4500 sets of measurements of height-for-age and weight-for-height from the author's surveys against the expected values from the normally distributed reference population. In comparison with the reference, children in resettlement areas in Zimbabwe are short for their age; that is, the curve is shifted to the left of the mean. On average, more than 10 per cent of children are severely stunted. In contrast, the curve for weight-

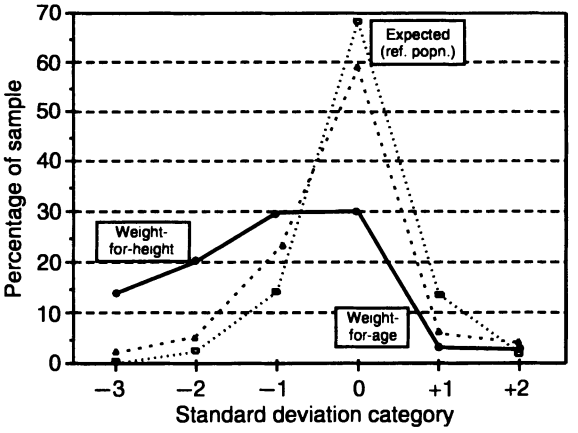

Figure 12.2 Distribution of nutritional indicators by standard deviation category (mean values for seven survey years) plotted against expected values

for-height peaks at the mean (zero) and approximates a flattened version of the normal distribution. That is, even though they are short for their ages, the children in the survey areas are more likely to have normal weights for their heights, although there is wide variability.

Since the work reported here began, the results of other nutritional surveys have become available. Most useful as a benchmark for comparison is the 1988 *Demographic and Health Survey* (DHS). Accordingly, the presentation of results here is, to the maximum extent possible, done in a manner to allow comparison with the results of the 1988 DHS survey.

A second DHS study was conducted in 1994, and the preliminary results have recently become available (Government of Zimbabwe, 1995). Because the coverage of the 1994 DHS differs from that of the earlier DHS, however, and because only preliminary results are available, the data are less useful and thus are not referred to here.

The basic data for the seven rounds of surveys and for the 1988 and 1994 DHS studies are set out in terms of standard deviations from the median in Table 12.4 and the survey data are plotted in Figures 12.3, 12.4 and 12.5.

Taking into account those cells in Table 12.4 showing negative deviations from the median greater than minus two, in comparison to the rural children in the 1988 DHS sample, children in resettlement areas are universally worse off in terms of the indicators of acute undernutrition: weight-for-age and weight-for height. Resettled children are, however, generally better off in terms of the consequences of

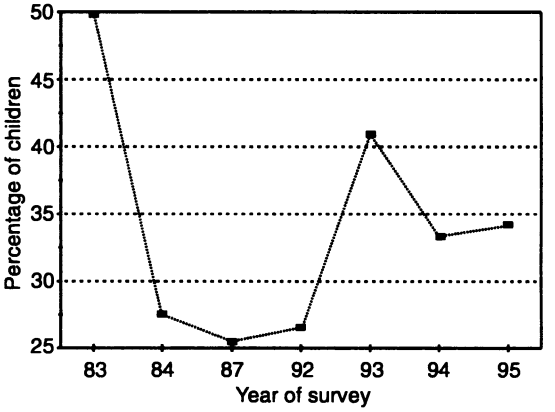

Figure 12.3 Proportion of children stunted up to Year of Survey

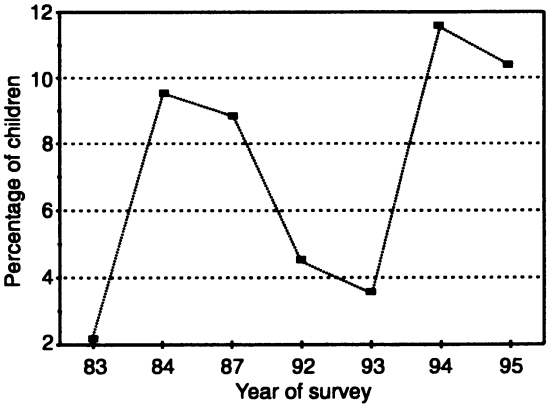

Figure 12.4 Proportion of children wasted up to year of survey

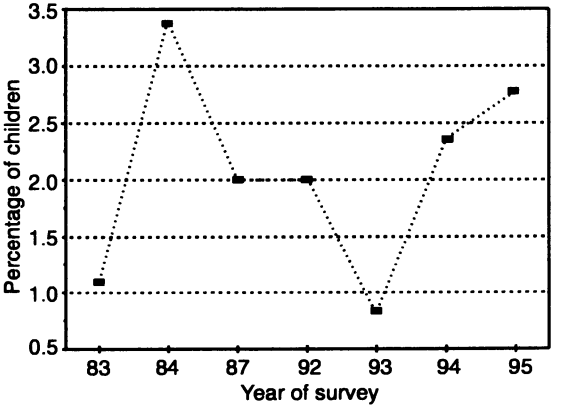

Figure 12.5 Proportion of children both stunted and wasted up to year of survey

chronic undernutrition: stunting of whatever severity is less pronounced in resettlement areas than in other rural areas. The exceptions are severe stunting (three standard deviations or more below the median) in 1983–4, 1992–3 and 1993–4, when more resettled children fell into this lowest category than did children from the 1988 DHS sample.

In interpreting these results, it must be borne in mind that the 1988 DHS results are more representative of a 'normal' year.[13] Thus it is to be expected that the weight-related indicators will be relatively worse for resettled children, since in every season but one when surveying took place, below-normal rainfall was experienced.

Table 12.4 Percentage distribution of children aged 3–60 months by standard deviation categories, three resettlement schemes, compared to a representative sample of rural children, 1988

Season and nutritional indicator	*Standard deviation from the median*							*Number of children in the sample*
	-3.00 or more	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +1.00	+1.01 to +2.00	+2.01 or more	Total percentage	
	(*Percentage of children in the sample*)							
Expected	0.1	2.2	13.6	68.2	13.6	2.3	100.0	
1982/3								
H/A	20.8	29.0	23.5	21.9	3.3	1.6	100.0	183
W/A	4.4	16.9	38.3	35.0	4.4	1.1	100.0	183
W/H	0.0	2.2	14.8	66.7	10.9	5.5	100.0	183
1983/4								
H/A	12.1	15.9	29.1	36.8	4.2	1.9	100.0	478
W/A	7.5	17.2	37.5	36.2	0.6	0.8	100.0	478
W/H	1.5	7.9	29.1	57.7	2.9	0.8	100.0	478
1986/7								
H/A	8.9	16.5	29.4	37.9	4.4	2.8	100.0	248
W/A	5.2	18.1	37.9	33.5	2.4	2.8	100.0	248
W/H	2.4	6.3	29.6	56.1	3.2	2.4	100.0	253
1988* (DHS)								
H/A	10.0	23.6	36.5	28.0	1.4	0.5	100.0	1892
W/A	2.0	11.6	33.1	48.5	3.9	1.0	100.0	1892
W/H	0.2	1.1	10.1	72.6	12.7	3.3	100.0	1892
1991/2								
H/A	7.7	18.8	35.9	33.1	2.8	1.7	100.0	181
W/A	2.8	17.1	40.3	37.0	2.8	0.0	100.0	181
W/H	1.1	3.3	25.3	63.2	5.5	1.6	100.0	182
1992/3								
H/A	16.6	24.0	29.8	25.3	2.7	1.6	100.0	766
W/A	2.7	18.4	40.9	34.6	2.6	0.8	100.0	766
W/H	0.8	2.8	20.8	62.5	7.3	5.8	100.0	778
1993/4								
H/A	16.3	17.3	25.8	29.4	4.4	6.8	100.0	589
W/A	8.7	16.5	33.3	33.8	3.6	4.2	100.0	589
W/H	3.4	8.1	20.5	54.5	8.1	5.4	100.0	594
1994/5								
H/A	12.7	21.4	32.5	28.8	1.6	3.0	100.0	562
W/A	8.2	21.3	36.4	23.0	7.9	3.2	100.0	560
W/H	3.9	6.3	22.7	57.2	5.6	4.3	100.0	586

Notes: *Rural children aged 3–60 months.
Source: Author's surveys. DHS data are from Government of Zimbabwe, 1989.

The severity of stunting in the 1983 round may be explained by several factors. Many of the children assessed in 1983 will have done much of their early growing as the disruptions caused by the war for independence were replaced by the disruptions caused by, first, immediate post-war relocation, and second, by relocation to the resettlement schemes. Moreover, health and other services were virtually non-existent in resettlement schemes in these earliest years. Later, as these facilities were provided, the incidence of stunting declined, only to increase again from 1992.

It is easier to read these year-by-year changes from Figures 12.3, 12.4 and 12.5. Figure 12.3 suggests that the proportion of children stunted (defined as moderate and severe levels combined) declined until 1987, but then rose again over the severe drought period during 1992 and 1993. It may therefore be more significant that the percentage of children in the category of the worst stunted declined with every round of the surveys during 1992 (Table 12.4). The drought of 1992–3 clearly caused a major perturbation in the growth of many rural children.

The data plotted in Figure 12.4 suggest that 1994 and 1995 appear to have experienced the most significant impact in terms of acute wasting. The low levels of wasting recorded in 1992 and 1993 are the outcome of a massive and essentially untargeted programme of child-feeding and associated drought relief. Conversely, the high proportion of children wasted in 1994 and 1995 is almost certainly a consequence of, first, another poor rainy season and, second, the reduction of drought-relief programmes after 1992 and 1993.

Finally, it is appropriate to look at the relationship between chronic and acute malnutrition. This is done conventionally by cross-tabulating height-for-age and weight-for-height. The results for the three resettlement schemes are set out in Table 12.5 and, for purposes of comparison, for children as a whole in Zimbabwe in 1988 in Table 12.6. The most serious cases of undernutrition are those that are both stunted and wasted.

Based on Tables 12.5 and 12.6, the incidence of the most severe form of undernutrition in resettlement areas in drought-affected years appears to be two to seven times higher than among Zimbabwean children generally (both rural and urban) in normal years. It is, however, worth remarking that the proportion of children who are both wasted and stunted declined between 1984 and 1993 (Figure 12.5). At the time of the survey in 1993, when the cumulative nutritional impacts of the severe drought should have been greatest, the

Table 12.5 The severity of undernutrition across seasons
Weight-for-height (Percentage of children)

Weight-for-height	*1983*			*1984*			*1987*			*1992*		
	Not wasted	*Wasted*	*Total*	*Not wasted*	*Wasted*	*Total*	*Not wasted*	*Wasted*	*Total*	*Not wasted*	*Wasted*	*Total*
Not stunted	50.0	1.1	51.1	67.2	5.1	72.3	70.2	7.3	77.5	69.3	2.4	71.7
Stunted	47.8	1.1	48.9	24.3	3.4	27.7	20.5	2.0	22.5	26.3	2.0	28.3
Total	97.8	2.2	100.0	91.5	8.5	100.0	90.6	9.4	100.0	95.6	4.4	100.0
	1993			*1994*			*1995*					
Not stunted	63.2	2.9	66.0	63.8	7.9	71.7	61.4	5.2	66.6			
Stunted	33.2	0.8	34.0	26.0	2.3	28.3	30.8	2.7	33.4			
Total	96.4	3.7	100.0	89.8	10.2	100.0	92.2	7.9	100.0			

Note: Children are deemed to be stunted or wasted when the relevant indicator lies two or more standard deviations below the median for the reference population.
Source: Author's surveys.

team recorded the lowest levels of serious malnutrition seen since the study began. Unfortunately, the incidence of serious malnutrition has approximately trebled since 1993.

Table 12.6 Rural and urban children combined, 1988

Height-for-age	*Weight-for-height*		*Total*
	Not wasted	*Wasted*	
	(percentage of children)		
Not stunted	70.2	0.8	71.0
Stunted	28.6	0.5	29.1
Total	98.8	1.3	100.1

Note: The definitions of stunting and wasting are thought to be identical to those employed as the basis for constructing Table 12.5.
Source: Government of Zimbabwe, 1989.

DISCUSSION AND CONCLUSIONS

The study has not employed nutritional tracking in the normal sense of assessing the impact of nutritional interventions. The same children have not been studied over time but rather the same *households*, usually with different children. While the 1987 survey captured numbers of the same children who had been included in 1984, the 1992 survey included none of the children from earlier rounds. There was, however, considerable overlap among the survey rounds for the four consecutive years 1992–5. Thus each round tells us not what has happened to a specific group of children over time but instead provides an aggregated nutritional index of children to be used as a barometer of conditions within communities.

The distribution of the anthropometric scores obtained from resettlement areas is, in common with other rural areas in Zimbabwe, skewed to the left of the values obtained from the reference population. Fewer children than expected are found near the centre and to the right of the centre of the distribution, and more than expected are found one standard deviation and more below the median. In comparison with other rural areas in Zimbabwe:

(i) Stunting in general appears to be less prevalent in resettlement areas;[14]

(ii) Low weight-for-age is more common in all seasons in resettlement areas; and
(iii) Wasting in resettlement areas is dramatically more prevalent in all years than in rural areas nationally.

Over the twelve-year period covered by the study:

(i) Larger proportions of children lie at the extremes of the distributions of height-for-age, weight-for-age and weight-for-height over time, suggesting the development of a situation in which the nutritional outcomes for children in different families are tending to diverge; and
(ii) Severe undernutrition is far more serious among resettled children in drought years than among all other children in Zimbabwe in normal years. The severity of the impact of drought appeared to be declining with time up to 1993, probably because supporting services and facilities had improved and have had beneficial effects on the health of resettled children.

The apparent reversal during 1994 and 1995 of what had previously been an improving trend in serious undernutrition gives cause for concern. Although it is not yet possible to link this change explicitly to underlying reductions in health-, welfare- and agriculture-related services, any sustained worsening of nutritional indicators suggests that many of the post-Independence gains in rural welfare are at risk.

How useful is it to track nutritional indicators in this way? To what extent are time series of anthropometric measurements good proxies for what is happening to the social and economic welfare of communities as a whole? This author has tracked the same families over twelve years. With an ageing population, this means, of course, fewer children in each successive round for the original parents. The chosen indicators therefore represent, to an ever-decreasing extent, the households that were the initial focus of the study. Because a large cohort of households has moved on to a different stage in the household/family cycle, what served usefully as indicators early in the resettlement programme have less and less relevance for the original settlers. Indeed, demographic changes in the study areas mean that many of the young women whose babies were measured in 1995 were themselves measured as girls in the early 1980s.

That malnutrition exists in the resettlement areas and that it is a serious problem in many cases are conclusions beyond doubt.

Although much further analysis remains to be done, it may be that the model established initially is in some ways too broad to capture meaningfully many of the factors associated with poor nutritional status. As Ricciuti (1982, p. 330) points out, it is 'important to note that even under ... generally stressful and adverse [socio-economic and environmental] conditions ... severe malnutrition is not distributed uniformly among the poorest families, nor even among siblings within the same family.' Further analysis therefore will focus not so much at the level of the resettlement programme as a whole, or even of individual schemes, but at the level of the individual villages within the schemes and of the households that make up these villages.

Attention has been directed here chiefly at child nutrition and food shortages as indicators of stress arising from the combined effects of relocation, drought and state interventions. Most households have coped over the years they have been studied, with or without assistance. Households in resettlement schemes have in later years had access to a wide range of state-provided services, some of which – drought relief, for example – can only have helped to alleviate stress among recipient households. Other services, such as agricultural credit, in fact served to accentuate stress when the burden of indebtedness was added to that of food shortages arising from failed crops. And still other important services and facilities, such as clean water supplies, clinics and shops, became available only after some years, and in numerous cases are still effectively out of reach of many settlers. With yet another serious drought in 1994–5, further reversals are likely of the gains made since Independence in essential social and economic services.

On the basis of the evidence examined here, the benefits of the resettlement experience remain enigmatic. Acute undernutrition appears worse in resettlement areas and chronic undernutrition appears less than in other rural areas of Zimbabwe. Has access to additional land thus enabled households to produce more food from year to year, but resulted in socioeconomic systems that are more vulnerable to drought-induced shocks? Has additional land led to greater diversification in cropping and/or in income sources that reduce chronic undernutrition but fail to protect against crises? Why does the impact of drought seem to be greater in the more recently established communities in resettlement areas than in the long-established ones in the communal areas of Zimbabwe? There appear to be no underlying changes in the annual sample that can explain

such outcomes. Indeed, every characteristic of the households and communities monitored over twelve years shows dramatic improvements in such intervening variables as maternal education and health awareness, quality of housing and other physical facilities, nature of the domestic water supply, levels of immunisation, and access to health facilities (Kinsey and Hoddinott, 1995). The analysis to date therefore suggests that providing additional land may, in the short term, merely ensure that the situation does not deteriorate. The hypothesis remains that the resettlement experience generates stresses that may take a long time to resolve.

This chapter has not addressed explicitly facets of coping and stress mitigation that have been observed over the twelve years of the study. Further analysis is planned at the level of individuals, households and villages in order to contribute towards understanding the factors that influenced decisions made and implemented. Similarly, very little examination has been made of behavioural patterns, despite their central place in relocation theory, and it is here that future work will have to employ tools and concepts more commonly used by anthropologists than by economists or nutritionists.

Notes

1. This chapter is based on data collected through detailed field studies conducted during the 1982–3, 1983–4, 1986–7, 1991–2, 1992–3, 1993–4 and 1994–5 agricultural seasons and less-detailed studies in every year since 1983. As part of a larger study of the post-independence resettlement programme in Zimbabwe, information has been collected over twelve years, based on a combined sample/census methodology among households resettled in the first two years of the programme: 1980–82. Acknowledgement is made to the Economic and Social Research Committee of ODA for resources to support the first two and the most recent round of the research. I also wish to express appreciation for comments received from Arne Disch, John Hoddinott, Elspeth McAdam, Lauchlan Munro and an anonymous referee.
2. Many sweeping changes have been reported in agriculture, industry and basic infrastructure in the aftermath of the Sahelian drought (Franke and Chasin, 1980) and the Indian (Bhatia, 1967) and Chinese (Oi, 1980) famines of the twentieth century.
3. A fourth variant – Model D – has undergone constant revision and exists in only a few pilot schemes. The study is based entirely on Model A intensive schemes.

4. The report of the Land Tenure Commission submitted in April 1995 has now been considered by the Cabinet, and a new land policy is being prepared at the time of writing (*The Herald*, 27 July 1995).
5. The climatic mechanisms underlying southern Africa's weather are still not fully understood, although there appears to be growing evidence that El-Niño events, reversals of winds and currents in the Pacific Ocean, are associated with abnormal weather in Zimbabwe. While climatologists appear reluctant to ascribe the 1992 weather anomalies entirely to an El-Niño event (Marume and Unganai, 1992), it is a fact that an El-Niño event accompanied each of the major droughts up to and including 1992 depicted in Figure 12.1.
6. In July 1995, there were approximately 8.5 Zimbabwean dollars to the US dollar and 13.5 to the pound.
7. See Jonsson (1981) for a schematic version of this conceptualisation.
8. The opposite may also be true. Both settlers and resettlement officials confirm that a strong motive in relocating from one part of rural Zimbabwe to another is to put distance between the relocating household and the relatives left behind in the location of origin. Unlike the Gwembe Tonga studied by Scudder and Colson, the home communities of Zimbabwe's contemporary settlers have neither moved nor been inundated. They remain, often nearby, as a potential source of succour and assistance, ritual and lineage involvement, parasitic relatives and so on.
9. Typically, households first experience the stress of clearing and planting some of their land while at the same time constructing domestic buildings and contributing to creation of social overheads. Later, households confront the issue of how to utilise their land fully with inadequate resources of labour and capital. Still later, households which fail to use all the land allocated to them become targets for land 'poachers', or are threatened with eviction because they are unproductive.
10. So vigorous was the expansion that many farmers in the study panel complained of having been coerced into taking credit against their wishes.
11. Many of these facilities were subsequently withdrawn and depots were mothballed under ESAP economies.
12. The field studies suggest that health user fees were seldom, if ever, applied in the study areas, although mere awareness that fees were meant to be charged may have served as a deterrent to some would-be users of health facilities.
13. The rains of 1988 were above normal (see Figure 12.1) and the DHS survey was conducted well after the harvest.
14. This comparison could be made with greater confidence if data had been collected in other rural areas at more frequent intervals and with greater consistency in methodology.

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Part IV
Aid Strategies

13 A Future Food Aid Regime: Implications of the Final Act of the Uruguay Round[1]

John Shaw and Hans Singer

Conclusion of the Uruguay Round, the signing and ratification of the Final Act, and the setting up of the World Trade Organisation (WTO) provide a major opportunity for establishing a new food aid regime within a liberalising global economy. The Uruguay Round will be only one of a number of factors affecting world food production, trade, prices and aid, and the Final Act falls far short of the full liberalisation of trade originally envisaged. Other factors, which were not addressed directly during the Uruguay Round negotiations, including the emergence of regional trading blocks in Europe, North America and South-East Asia; the underlying forces of technological change that will continue to increase food production; and rising population growth and commercial demand in developing countries as incomes increase are likely to have significant effects on food supply, demand and price relationships. But will the Uruguay Round provide the swing factor, with other forces more or less cancelling each other out (Page, 1994)? Furthermore, gains brought about by the Uruguay Round in the agricultural sector may be offset by losses in other sectors, and *vice versa* (Islam and Valdes, 1990). Nevertheless, a major change has been brought about by the Uruguay Round in the way food markets are viewed, in the rules under which countries must operate their national food policies, and the opportunities for effective use of food aid.

In this chapter, we give details of the food aid provisions of the Final Act; review food aid requirements in relation to future levels of food aid; raise questions about the definition of food aid; and make proposals for a future food aid regime.

FOOD AID PROVISIONS OF THE FINAL ACT

In essence, the references to food aid in the Final Act set two major elements for a future food aid regime: (i) an adequate level of food aid to meet the needs of least-developed countries (LDCs) and net food-importing developing countries (NFIDCs); and (ii) an appropriate mechanism to ensure that food aid does not circumvent disciplines on export subsidies.

In the Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food Importing Countries (GATT Secretariat, (1994), pp. 448–9), the signatories to the Final Act 'recognize that the progressive implementation of the results of the Uruguay Round as a whole will generate increasing opportunities for trade expansion and economic growth to the benefit of all participants'. However, they also 'recognize that during the reform programme leading to greater liberalization of trade in agriculture, LDCs and NFIDCs may experience negative effects in terms of the availability of adequate supplies of basic foodstuffs from external sources on reasonable terms and conditions, including short-term difficulties in financing normal levels of commercial imports of basic foodstuffs'.

Accordingly, the signatories 'agree to establish appropriate mechanisms to ensure that the implementation of the results of the Uruguay Round on trade in agriculture does not adversely affect the availability of food aid at a level which is sufficient to continue to provide assistance in meeting the food needs of developing countries, especially LDCs and NFIDCs'. To this end, they agree:

(i) to review the level of food aid established periodically by the Committee on Food Aid under the Food Aid Convention 1986 and initiate negotiations in the appropriate forum to establish a level of food aid commitments sufficient to meet the legitimate needs of developing countries during the reform programme;
(ii) to adopt guidelines to ensure that an increasing proportion of basic foodstuffs is provided to LDCs and NFIDCs in fully grant form and/or on appropriate concessional terms in line with Article IV of the Food Aid Convention 1986;[2]
(iii) to give full consideration in the context of their aid programmes to requests for the provision of technical and finan-

> cial assistance to LDCs and NFIDCs to improve their agricultural productivity and infrastructure.

It is further agreed in the Decision that 'any agreement relating to agricultural export credits should make appropriate provision for differential treatment in favour of LDCs and NFIDCs'. The provisions of this Decision will be subject to regular review by the WTO Ministerial Conference, and its follow-up will be monitored by the WTO's Committee on Agriculture.

Annex 2 of the Agreement on Agriculture of the Final Act relating to 'Domestic Support: The Basis for Exemption from the Reduction Commitments' (GATT (1994), p. 58), includes 'Expenditures (or revenue foregone) related to the provision of domestic food aid to sections of the population in need' among the domestic policies that are exempted from reduction commitments ('Green Box'). The relevant text goes on to explain that 'Eligibility to receive this food aid shall be subject to clearly-defined criteria related to nutritional objectives. Such aid shall be in the form of direct provision of food to those concerned or the provision of means to allow eligible recipients to buy food at market or at subsidized prices. Food purchases by the government shall be made at current market prices and the financing and administration of the aid will be transparent'. Public stockholding for food security purposes is also exempted from reduction commitments.[3]

In Article 10 of the Agreement on Agriculture of the Final Act concerning the 'Prevention of Circumvention of Export Subsidy Commitments' (GATT Secretariat (1994), p. 50), donors of international food aid are required to ensure:

> (a) that the provision of international food aid is not tied directly or indirectly to commercial exports of agricultural products to recipient countries; (and) (b) that international food aid transactions, including bilateral food aid which is monetized (sold), shall be carried out in accordance with the FAO 'Principles of Surplus Disposal and Consultative Obligations', including, where appropriate, the system of Usual Marketing Requirements (UMRs).[4]

In the 'Decision on Anti-Circumvention', it is decided to refer any malpractice to the Committee on Anti-Dumping Practices established under the Agreement on Implementation of Article VI of GATT 1994 (GATT Secretariat (1994), p. 453).

The food aid provisions of the Final Act raise several basic questions concerning a post-Uruguay Round food aid regime. No indication is given as to the level at which food aid should continue to be provided, whether that level should go beyond status quo demand to include the need to raise nutritional levels in developing countries above their current status, or the proportion of food aid that should be provided in grant form. What steps should be taken to ensure reliability of its supply? To what extent should food aid be channelled multilaterally? What is the 'appropriate forum' to establish and review the level of food aid, and to adopt guidelines to ensure that it goes to the most needy countries and people? And what should constitute 'food aid'?

PAST FOOD AID AVAILABILITIES AND FUTURE REQUIREMENTS

According to provisional data (WFP, 1995a), global food aid deliveries in 1994 were 12.9 million tons, 20 per cent below the 1993 level, and 9 per cent below the 1988–93 annual average (see Table 13.1). About 41 per cent of global food aid deliveries in 1994 was provided as programme aid, 35 per cent as relief assistance, and 24 per cent as support for development projects. Programme food aid is provided exclusively on a bilateral government-to-government basis, as a grant or a loan, for balance of payments and budgetary support. Unlike relief and project food aid, it is not targeted at poor and food-insecure people, and is sold in the recipient country, mainly in urban markets. Programme food aid fell sharply in 1994 to about two-thirds of its 1988–93 annual average. In contrast, relief food aid rose by a-third above its 1988–93 annual average level, and project food aid, which is provided on a grant basis to specific target groups to support developmental objectives, increased to a level that had not been reached since 1988.

Sub-Saharan Africa was the main recipient region of food aid in 1994, accounting for 36 per cent of global deliveries. The former-Yugoslavia and former Soviet Union received almost a quarter of global food supplies, more than Asia and the Pacific, which received 21 per cent; Latin America and the Caribbean (11 per cent); and North Africa and the Middle East (8 per cent).

With the reduction of programme food aid, the proportion of food aid delivered bilaterally fell to its lowest level, 48 per cent, in 1994,

Table 13.1 Food aid deliveries by recipient region and category 1988–94 (000s tons)

	Cereals[1]				*Non-cereals*			
Year	*Total*	*Programme*	*Relief*	*Project*	*Total*	*Programme*	*Relief*	*Project*
Sub-Saharan Africa								
1988	4 124.3	1 658.6	1 911.4	554.3	422.6	53.3	242.5	126.8
1989	2 581.5	1 068.2	1 025.4	487.9	295.7	53.9	137.2	104.5
1990	2 907.5	752.2	1 716.8	438.4	346.2	28.2	227.3	90.7
1991	3 593.0	969.3	2 129.3	494.3	403.6	24.4	290.6	88.6
1992	5 487.0	1 857.4	3 175.2	454.5	520.2	39.2	397.0	84.0
1993	4 225.7	1 203.6	2 454.6	567.5	530.0	20.6	403.6	105.8
1994	4 089.3	712.5	2 711.3	665.6	583.2	28.5	474.5	80.1
Asia and Pacific								
1988	4 363.0	1 528.6	900.5	1 933.9	691.9	418.0	75.9	197.9
1989	3 031.1	1 174.8	854.2	1 002.1	336.2	193.6	34.3	108.3
1990	2 540.4	811.6	557.3	1 171.4	348.6	241.2	33.9	73.5
1991	2 874.6	791.4	639.8	1 443.4	186.3	71.8	25.0	89.5
1992	2 439.8	814.4	634.9	990.5	289.2	154.0	50.0	85.2
1993	1 733.2	560.0	354.4	818.7	307.5	204.8	34.6	68.0
1994	2 444.5	762.8	296.2	1 385.5	229.5	128.0	30.9	70.6
Latin America and Caribbean								
1988	2 250.1	1 648.9	34.7	566.5	324.6	154.4	19.3	150.9
1989	1 869.9	1 219.4	64.2	587.3	173.5	67.3	5.3	100.9
1990	2 092.8	1 520.3	46.1	526.5	207.5	86.9	8.9	111.6
1991	1 807.0	1 528.7	23.2	455.1	212.4	75.5	15.1	121.8
1992	1 569.7	999.6	21.5	548.6	269.1	111.4	1.8	155.9

Table 13.1 Continued

Year	Cereals[1]				Non-cereals			
	Total	*Programme*	*Relief*	*Project*	*Total*	*Programme*	*Relief*	*Project*
1993	1 837.5	1 206.0	32.5	599.0	208.0	61.2	4.7	142.2
1994	1 258.9	711.8	27.9	519.2	127.1	19.5	11.6	95.8
North Africa and Middle East								
1988	2 414.9	1 890.2	72.8	451.9	256.7	158.2	24.0	74.6
1989	2 635.2	1 992.1	230.7	412.3	184.0	78.5	36.9	68.5
1990	2 815.2	2 300.6	136.5	378.1	135.3	48.1	40.3	46.9
1991	2 946.4	2 367.8	319.4	259.2	148.4	59.5	58.7	30.2
1992	1 439.5	1 006.2	206.0	227.3	149.7	74.7	42.7	32.3
1993	992.3	523.6	307.3	161.3	99.3	32.7	36.0	30.6
1994	940.6	491.5	279.9	169.2	100.9	30.8	41.6	28.5
Eastern Europe[2] former USSR								
1988	–	–	–	–	–	–	–	–
1989	609.4	609.4	–	–	17.0	17.0	–	–
1990	2 102.9	2 102.8	0.1	–	146.2	146.2	0.2	–
1991	770.0	765.2	4.8	–	229.7	196.2	33.5	–
1992	2 465.3	2 239.2	226.1	–	603.0	366.7	236.2	–
1993	6 231.8	5 824.0	407.8	–	656.2	522.2	134.0	–
1994	2 278.4	1 737.4	541.0	–	887.2	665.2	222.0	–
World total								
1988	13 152.3	6 726.3	2 919.4	3 506.6	1 695.9	783.9	361.7	550.2
1989	10 727.0	6 063.0	2 174.4	2 489.6	1 006.3	410.4	213.7	382.2
1990	12 458.8	7 487.6	2 456.8	2 514.5	1 183.7	550.4	310.5	322.8

Table 13.1 Continued

1991	11 991.0	6 222.4	3 116.5	2 652.1	1 180.4	427.3	422.9	330.1
1992	13 401.4	6 916.8	4 263.6	2 220.9	1 831.1	746.0	727.7	357.5
1993	15 020.4	8 317.2	3 556.6	2 146.6	1 801.0	841.5	612.9	346.6
1994	11 011.7	4 416.0	3 856.3	2 739.5	1 927.9	872.1	780.8	275.0

Notes:
1. In grain equivalent.
2. Including former Yugoslavia.
Source: I WFP International Food Aid Information System (INTERFAIS) database.

with 31 per cent channelled multilaterally, mainly through the World Food Programme (WFP), and 21 per cent handled by non-governmental organizations (NGOs), principally on behalf of bilateral donors. While most food aid was provided on a grant basis in 1994, about 15 per cent was supplied as loans.

Food aid, as statistically recorded, has declined progressively as a proportion of total Official Development Assistance (ODA) since the mid-1980s, from over 10 per cent to less than 5 per cent.

There have been marked differences among the recipient regions in the ways in which food aid has been used. In the recent past, most of the food aid to Latin America and the Caribbean, North Africa and the Middle East, and the former Yugoslavia and former Soviet Union has been in the form of programme aid. By contrast, over half the food aid to Sub-Saharan Africa has been for emergencies, while the largest share of food aid to the Asia and Pacific region has gone to support development projects.

Only about 9 per cent of global food aid has been used directly for agricultural and rural development, mainly through food-for-work programmes, and 4 per cent in nutrition and health programmes for mothers and pre-school children (Shaw, 1995; Shaw and Clay, 1993).

The indications are that food aid will be required on a growing scale during the 1990s. Problems of increasing numbers of malnourished people as the population grows, higher food imports, worsening balance of payments and high levels of debt servicing are occurring in many developing countries. To these factors must be added the social cost of structural adjustment policies and programmes (Shaw and Singer, 1988), and the considerable increase in large-scale and prolonged disasters caused by humans and nature that have resulted in a significant increase in the need for emergency food aid. This, in turn, has led to a large increase in the demand for aid, including food aid, in rehabilitation and reconstruction programmes in the aftermath of emergencies. Similarly, assistance is required for disaster prevention, preparedness and mitigation programmes that can reduce the need for future emergency aid and the negative effects of disasters on economic growth and human welfare.

The world population is estimated at the time of writing to be 5.6 billion. While the rate of population growth is declining absolute increments have been increasing, at present exceeding 86 million people a year. United Nations population projections for the year 2050 range from the low variant of 7.9 billion to the high variant of 11.9 billion (UN, 1995). While major disasters attract world attention,

the 'silent emergency' affects vastly larger numbers of people every day. These people are particularly vulnerable when 'loud' emergencies strike. Despite notable advances, over a billion people in developing countries, a quarter of their total population, live on the equivalent of less than a dollar a day (World Bank, 1992). By 2020, the demand for foodgrains and livestock products in developing countries is projected to increase by 75 per cent and 155 per cent respectively as a result of population growth, increasing incomes and dietary changes. Most of this additional food will have to be produced on land currently under cultivation, as significant expansion of cultivated areas is costly in both economic and environmental terms (IFPRI, 1995).

The International Conference on Nutrition, held in December 1992, declared that despite appreciable world-wide improvements, some 780 million people in developing countries, 20 per cent of their combined populations, did not have access to enough food to meet their basic daily needs for nutritional well-being. Particularly distressing are the high prevalence and increasing numbers of malnourished children under five years of age. More than two billion people, mostly women and children, are deficient in one or more micronutrients (FAO/WHO, 1992). More than a third of rural people in developing countries have incomes and consumption levels below nationally defined poverty lines (Jazairy *et al.*, 1992). In the four decades after 1950, the urban population of developing countries quintupled, to reach 1.6 billion people. Urban poverty is also growing rapidly in the developing world, as people flock to towns and cities in search of work and welfare. Yet towns and cities have grown beyond the capacities of local governments to deliver even basic social services (UN (1993a), p. 5; UNDP, 1991).

Overlying these already deep and seemingly intractable problems is the increasing incidence, scale and duration of emergency situations, especially those caused by humans rather than nature. In 1970, there were 2.5 million refugees in the world; a decade later, there were 11 million; and in 1993, the number was over 18 million. In addition, there were an estimated 24 million people displaced from their homes in their own country (UNHCR, 1993).

Armed conflict is not the only force that is affecting the normal development of developing countries and their people. A silent 'economic emergency' continues, often accompanied by misplaced adjustment programmes, which is resulting in the economic and social marginalisation of the poorest people in the poorest countries (Cornia *et al.*, 1987; Shaw and Singer, 1988). Since the mid-1980s, such factors

as falling commodity prices, rising military expenditure, poor returns on investment, the debt crisis, and structural adjustment programmes have reduced drastically the real incomes of 800 million people in forty developing countries. In Latin America, the reduction has been as much as 20 per cent; in Sub-Saharan Africa, often much more. At the same time, cuts in essential social services have resulted in even fewer programmes of nutrition, health, education and training, especially for the poor. An underclass is being created: underfed, undereducated and unskilled, and passed by in the economic and social progress that is achieved (UNICEF, 1995).

While the majority of chronically malnourished people live in Asia, their number is growing alarmingly in Africa. The situation in Sub-Saharan Africa gives particular cause for concern. Projections made by FAO, the International Food Policy Research Institute (IFPRI) and the World Bank suggest that food imports to that region may realistically be expected to at least double during the 1990s. A joint study by the World Bank and the WFP concluded that even on the most optimistic assumptions about growth in food production, imports of food will continue to grow. In addition, if the food security of millions of Africans is to be improved through programmes that increase their access to food, even higher food imports will be required. Since overall economic and balance-of-payments prospects are unfavourable, the study concludes that food aid would continue to play an important part in meeting the region's food deficits (World Bank WFP, 1991; Shaw, 1991).

Projections of future annual food aid requirements to the year 2000 indicate the need to increase current food aid supplies from 20 million tons to meet a status quo demand to 40 million tons when the aim of improving nutritional standards throughout the developing world is taken into consideration (Alexandratos, 1988; FAO, 1991; USDA, 1994; USNRC, 1989; WFP, 1983). By contrast, global food aid, as narrowly defined and statistically recorded, *fell* sharply in 1994–5; a significant proportion went to the former Yugoslavia and former Soviet Union rather than to the traditional food aid recipient developing countries; and the largest part of food aid continued to be supplied bilaterally as programme aid untargeted on poor and food-insecure people.

The USA, the largest food aid donor, *cut* its food aid commitment under the extended Food Aid Convention of 1986 by more than half, which had the effect of reducing the minimum aggregate commitment of the new Food Aid Convention (which came into effect on 1 July

1995) from 7.5 million tons to 5.36 million tons (in wheat equivalent) (IGC, 1995). This cut was made in response to the mounting pressure to reduce the huge United States' federal budget deficit, and at a time when US farm exports were expected to rise by 12 per cent over the previous year, to a record level of US$48.5bn during the fiscal year ending in September 1995, and a farm trade surplus of US$20bn, up 16 per cent on the previous year.[5]

WHAT CONSTITUTES FOOD AID?

The present statistical convention is that food aid is distinguished from food trade or commercial transactions by an element of concessionality. The *FAO Principles of Surplus Disposal and Consultative Obligations* (FAO, 1992) refer to 'sales on concessional terms' as distinguished from 'commercial sales'. When these Principles' were adopted in 1954, the distinction between the two types of transaction was assumed to be self-evident. However, with experience gained from applying them, it became apparent that views on the meaning of 'normal commercial practice' differed among governments. Furthermore, as the objectives of economic assistance gradually took precedence over those of surplus disposal, related issues have arisen, considering whether certain kinds of transaction should be regarded as concessional transactions or commercial sales.

Various attempts were made in the 1950s to find a generally acceptable distinction between concessional and non-concessional transactions, but none provided a definitive answer. An operational solution was found in 1970: putting aside the task of defining 'concessional', which still remains an issue, a list was drawn up of types of transaction that were regarded as constituting 'food aid' and were therefore within the area of responsibility of the Subcommittee on Surplus Disposal (CSD), a sub-committee of the FAO's Committee on Commodity Problems, set up specifically to monitor the implementation of the *FAO Principles of Surplus Disposal*, and to provide a forum for consultations.

These transactions include gifts or donations of food commodities by governments, intergovernmental organisations (principally the WFP), and private, voluntary or non-governmental organisations; monetary grants tied to food purchases; and sales and loans of food commodities on credit terms with a repayment period of three years or more (FAO (1992), pp. 7–9 and annex F). Other transactions regarded

as constituting 'food aid' might be added to the list as a result of the Uruguay Round. In addition, even more transactions might be added if the 'grey area' between food aid, as currently defined in the FAO *Principles*, and outright commercial sales with no explicit concessional element, is expanded.

The Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), which comprises the major donor countries, have agreed on a benchmark of 25 per cent below the commercial price as an arbitrary definition of the grant element in ODA. Some immediate problems arise for food aid: the international price of food is not a textbook free-market price with a significant reference function; a recent publication has described the world market price for food as 'residual' and 'largely devoid of significance' (Uvin, 1994).

The policies of subsidising national agriculture in the major industrial countries have resulted in surpluses and surplus capacities. It is these surpluses that both enable and induce these countries to tie their aid to food. But they also depress the commercial price of food in international trade. Hence the 25 per cent concessionality limit that might define food aid is not 25 per cent off a truly free-market price, but 25 per cent off a world price that is itself at a discount to what commercial prices would be in a free, fully liberalised market. In other words, if the 25 per cent concessionality were measured from a truly free market price in international trade, many more transactions would come to be defined as 'food aid'.

A large part of so-called food 'trade' does not take place as straight market transactions at international prices, but is conducted through a labyrinth of various forms of bilateral agreements that provide discounts from the 'commercial' international price (itself reduced by overhanging surpluses and domestic production subsidies) in many direct and indirect ways. This makes it difficult, if not impossible, to quantify globally such transactions as export credit, guarantee and enhancement programmes, and linkages with other trade concessions, or with financial aid and so on.

Table 13.2, which gives United States Department of Agriculture data for US agricultural export programmes from 1955 (when the US food aid programme under Public Law 480 began) to 1993 shows the considerable increase in the value of agricultural commodities exported under credit, guarantee and export enhancement programmes. The total value of these programmes was almost three times

the value of agricultural exports designated as food aid in 1993, and accounted for 18 per cent of the total value of US agricultural exports.

With 'commercial' imports of Third-World countries running at seven times the level of statistically recorded 'food aid', we estimate that it would only need an overall subsidy factor of 14 per cent to double real (as distinct from statistical) food aid. This estimate is well within the realms of possibility, and is probably an understatement. The effective international price of wheat, for example, may be 30–40 per cent below the official Chicago price, with similar discrepancies for coarse grains and rice.

Table 13.2 United States of America agricultural export programmes, 1955–93 (US $m)

Year	*Food aid*[1]	*Credit and guarantee programmes*	*Export enhancement programme*	*CCC direct sales*[2]	*Agricultural export value*
1955	384.4	69.0			3 144.0
1956	984.9	61.9			3 496.0
1957	1 525.1	73.1			4 728.0
1958	981.0	203.3			4 003.0
1959	1 017.3	92.8			3 719.0
1960	1 115.9	1.0			4 519.0
1961	1 316.4	18.0			4 946.0
1962	1 495.5	33.0			5 143.0
1963	1 456.3	77.0			5 078.0
1964	1 418.0	118.0			6 068.0
1965	1 570.5	95.0			6 097.0
1966	1 345.9	210.0			6 747.0
1967	1 270.8	339.0			6 831.0
1968	1 279.5	141.0			6 331.0
1969	1 038.6	116.0			5 751.0
1970	1 055.8	211.0			6 958.0
1971	1 023.0	391.0			7 955.0
1972	1 057.0	372.0			8 242.0
1973	946.4	1 029.0			14 984.0
1974	865.9	297.9			21 559.0
1975	1 099.1	248.6			21 817.0
1976	904.1	956.9			22 742.0
1977	1 103.6	755.3			23 974.0
1978	1 072.8	1 582.5		16.9	27 289.0
1979	1 187.2	1 590.6		17.8	31 979.0
1980	1 341.6	1 417.0		41.4	40 481.0
1981	1 333.0	1 874.0		172.6	43 780.0

Table 13.2 Continued

Year	*Food aid*[1]	*Credit and guarantee programmes*	*Export enhancement programme*	*CCC direct sales*[2]	*Agricultural export value*
1982	1 107.6	1 393.0		24.3	39 097.0[3]
1983	1 194.7	4 069.0		95.0	34 769.0
1984	1 505.9	3 646.0		15.5	38 027.0[3]
1985	1 905.8	2 761.0	86.5	95.6	31 201.0
1986	1 334.2	2 416.5	715.7	111.7	26 312.0
1987	1 077.2	2 984.0	1 684.4	157.0	27 876.0
1988	1 435.7	3 879.9	3 313.5	108.6	35 316.0
1989	1 298.4	5 057.0	2 826.7	137.0	39 590.0
1990	1 315.0	4 299.6	2 384.2	7.1	40 220.0
1991	1 109.2	4 111.3	2 009.3	39.0	37 609.0
1992	1 074.3	5 529.0	3 296.8	133.3	42 430.0
1993	2 365.6	3 759.0	3 733.5	15.9	42 590.0

Notes:
1. Under Public Law 480 and Section 416 of the 1949 Agricultural Act.
2. The market value of commodities sold by the Commodity Credit Corporation (CCC) was not available prior to 1978.
3. Includes barter sales outside the food aid programme of $13.0 million for 1982 and $34.0 million for 1984.
Source: United States Department of Agriculture.

Under the Final Act, export subsidies and domestic agricultural support measures are to be reduced generally by 36 per cent and 21 per cent respectively over a six-year period. However, it is doubtful whether these reductions will catch *all* the hidden and indirect subsidies involved. For example, subsidies tied to area rather than production in the so-called 'set-aside' programmes in developed countries are exempted from reductions. Thus real food aid may well be double the 1994 statistical figure when we allow for international prices being lower than true free-market prices, as a result of the present policies of the industrial countries, such as the Common Agricultural Policy (CAP) of the European Union, resulting in surpluses that overhang the market and depress international prices; and then double again, when we also allow for direct and indirect discounts from the already lowered international price. While difficult to quantify precisely, this illustrates the conservatism of the statistical figure for food aid of 12.9 million tons in 1994.

This point has acquired special importance as agreement on only partial liberalisation of agricultural policies has been reached in the

Final Act. On the basis of various economic models, using more-or-less plausible assumptions, quantitative estimates have been made of the prospective *rise* in food prices in world trade brought about by the Uruguay Round. Taking the FAO estimates (FAO, 1995), the international price of wheat is expected to increase by 7 per cent, for rice by 7 per cent, for maize by 4 per cent, and for millet/sorghum by 4 per cent. If we take an average of a 5.5 per cent price increase for these four food items (which make up the bulk of food aid), we find that the resulting 5.5 per cent discount from the higher commercial price as it would be without the partial Uruguay Round agreement, is roughly equal in value as an income transfer to food importers to what is now statistically defined as food aid.

If all the benefits from present lowered prices were passed on to food-importing developing countries, food aid would be approximately doubled compared to the present 'statistical' figure. This would raise the current volume of food aid to around 26 million tons and make any talk of 'the decline in food aid' somewhat questionable (Clay, 1994). It would also bring food aid within the range of status quo assessments of food aid needs made by the FAO and USDA, and would raise the share of food aid in total ODA to about 15 per cent, giving it a distinctly more important profile. However, only part of the benefits of present lower prices go to food-importing developing countries (and will also be at the expense of food- exporting developing countries).

With more radical assumptions, moving from partial to full market liberalisation, and defining any discount from the much higher fully liberalised commercial international free market price for food commodities as 'food aid', we might find the true volume of current food aid thus broadly measured, further increased – perhaps quadruple rather than double statistically recorded food aid – or something of the order of 40–50 million tons (Goldin *et al.* (1993), p. 31, table 3.1). This would bring food aid to a level estimated to cover nutritional requirements (see above).

The essential qualification to such comparisons is that food aid implicit in the artificial lowering of international food prices and trade discounts – the food aid that dares not speak its name – is not targeted on the food needy, on food security objectives or on food requirements. It is broadly and blindly given across the board to all commercial importers, regardless of need, mainly for short-run political and commercial – market protection or penetration – purposes. In fact, the really needy, almost by definition, are not commercial importers or

purchasers. If this hidden food aid could be brought out into the open as a major benefit of the Uruguay Round, and properly targeted on the needy, the world would have taken a major step in dealing with the hunger problem and, by extension, with the eradication of poverty.

So far, we have identified two types of 'grey' food aid that are not included in the food aid statistics. These are what we might call the 'light grey' food aid of subsidised exports, export credits and other forms of concessionalities, which apply to a very high proportion of total food exports by food aid donors. The second is 'dark grey' food aid consisting of the concealed subsidy to food importers as a result of the lower prices in international food trade caused by the pressure of overhanging surpluses and surplus capacity. But beyond these two categories there are other statistically unrecorded transactions, which, in economic effect, amount to food aid with different shades of grey.

What shade of grey food aid, for example, is the programme and emergency aid provided to the countries of the former Yugoslavia and former Soviet Union? Some, at least, of the financial aid, especially financial programme aid, including structural adjustment lending, finances balance-of-payments deficits, thus enabling countries to acquire additional imports. In so far as some of these additional imports consist of foodstuffs, we could say that this segment of financial aid is, in fact, aid for food – or food aid. As a first approximation, we may assume that financial aid that, in effect, finances additional imports should be classified as food aid in the same proportion as food imports are to total imports to recipient countries. Even project aid, as a result of fungibility, has the ultimate effect of freeing foreign exchange (Singer, 1965). Since food imports of the low-income and lower-middle-income countries (excluding China and India) represent 14 per cent of their total imports, we may roughly assume that of the US$50bn of annual financial ODA, some US$7bn represents finance for food imports or, in the broader sense, food aid. The inclusion of this amount would almost treble food aid as currently statistically defined. This, however, assumes that all financial aid goes to food aid recipients; the impact would have to be reduced by the proportion of financial aid *not* going to them.

This would also apply to those parts of the IMF's special facilities that have been used to finance food imports (Kaibni, 1988; IMF, 1990). It is difficult to avoid the conclusion that, at least conceptually, transactions under these facilities that relate to food imports should be included as different shades of 'grey' food aid. This is particularly the

case since the IMF has developed sources of funds on highly concessional terms, with interest as low as 0.5 per cent in the case of the recently established Enhanced Structural Adjustment Facility.

We have identified areas not included in current food aid statistics and have shown that a broader definition of food aid is required. However, there is also a countervailing element where the present definition of food aid could be said to be excessively wide. Some food aid represents, in fact, financial aid, in that it sets free foreign exchange. This relates to that part of a food aid programme that replaces commercial imports, but its magnitude is a matter of counterfactual evidence, which is notoriously difficult to measure. This substitution has been put at as much as 60–70 per cent (Saran and Konandreas, 1991), which may be on the high side. How much food would a country have imported commercially if no food aid programme had been provided? The same question could be asked of countries receiving emergency food aid, particularly those that have received this type of food aid continuously for many years, although in this case it would be less likely that commercial imports could have been afforded. The size of this part of statistical food aid, which in fact, amounts to financial aid, must remain more a matter of speculation rather than of practical adjustment – more in the nature of a statistical footnote.

A second dimension in which present food aid statistics may be overstated relates to its value rather than to tonnage. Food aid may be valued in a number of ways: for example, its value at cost to donors; its market value; or its cash-equivalent value. OECD donors usually value their food aid at the budget costs to themselves, but these costs are inflated by the subsidies and high domestic prices involved in their own agricultural policies. One estimate puts the actual value of the food donated at international prices at only about a half of the budgeted value (Saran and Konandreas, 1991).

But international prices are themselves artificially lowered by the same agricultural policies, so the 'true' value would be somewhere between the international price and the budget cost price. When a donor provides a food commodity to be exchanged for another food commodity to be used as food aid in the same country, what should be the ratio at which the exchange takes place, and what value should be assigned to the food commodity actually used as food aid? (WFP, 1990). One author has recently concluded that no single method for estimating the value of food aid is uniquely appropriate: it depends on the data available and the end-uses of the results (Faminow, 1995).

All these points illustrate the quagmire of food aid concepts and statistics.

Yet a third cause of possible overvaluation of food aid in present statistics relates to triangular transactions and local purchases of food to be used as food aid. Some food aid donors without any surplus food (yet, for example, committed under the Food Aid Convention to participate in 'food aid') might give cash instead to buy food in other countries, or locally in the recipient country. These food aid transactions have gained wide approval. They are seen as stimulating food production in developing countries; reducing transfer (especially transport) costs; providing food commodities more in keeping with the food habits of recipients; and enhancing South–South trade among developing countries (WFP, 1989). However, it is by no means clear how they should appear in the aid statistics.

If the UK, for example, buys surplus white maize in Zimbabwe and transports it to Zambia, where it is used as food aid, Zambia is clearly designated as the food aid recipient country. But the case could well be presented as UK-financed South–South trade between Zambia and Zimbabwe. From the UK's point of view, this is a case of double benefits: the transaction represents financial support to Zimbabwe by providing foreign exchange for its surplus maize; and food aid to Zambia is either to meet an emergency or to be used to support development projects. Yet it would clearly be double-counting for this transaction to be considered as both financial support to Zimbabwe and food aid to Zambia. Which should it be? To count it only as food aid would understate the financial support provided; to count it only as food aid to Zambia would understate the support figures for Zimbabwe; and to count it as financial support only would run the opposite risk.

This last example illustrates that the real quagmire is conceptual rather than statistical. When we deal with subsidised and financially promoted trade, what part of it is 'trade' and what part is 'aid'? What is, or should be, the grant element that distinguishes trade from aid? Where is the borderline between financial and food aid? On which side of the borderline should the following transactions fall: monetised food aid; triangular transactions; and balance-of-payments support, either through financial or programme food aid? How should the hidden subsidies to food importers arising from the agricultural policies pursued by the EU, USA and others now be treated? Where is the benchmark for full commercial prices as against actual prices in international trade? The more we broaden the definition of food aid

and ask these questions, the more it becomes clear that food aid must be understood and handled, not in isolation, as in the past, but as an element in world food security and trade, and co- ordinated with financial assistance.

Such a shift towards a broader conception of food aid will be all the more necessary as one of the outcomes of the Uruguay Round and the implementation of the Final Act. It will also be necessary since the historical links of food aid with surplus disposal and the resulting popularity of food aid, especially in the farming communities of the industrial countries, are now likely to be weakened as a result of the liberalisation of agricultural policy.

Partly as a result of these links, and partly because of the direct association of food aid with hunger and poverty alleviation, and humanitarian relief, food aid has consistently enjoyed greater political and public support in donor countries than has financial aid. Food aid has consistently done better than financial aid in relation to the United Nations' targets set for these two types of assistance, although the targets are not directly comparable. For food aid, the target is static, set as an absolute quantity (at least 10 million tons of grains and adequate quantities of other food commodities annually), while financial aid is expressed in *ad valorem* terms as 0.7 per cent of GDP, which means that it is a moving target growing with GDP.

While official financial aid is stagnating at, on average, less than 0.35 per cent of donor GDP, and even lower for a number of the major donor countries – that is, less than half the accepted UN target, food aid, even narrowly defined and statistically recorded, has, in recent years, consistently exceeded the annual target set by the 1974 World Food Conference (UN (1995), p. 15) and the aggregate guaranteed minimum contributions established under the Food Aid Convention, a legally binding, multiannual commitment of a kind not achieved for financial aid. Food aid has amounted to around 2 per cent of the total food production of the major donors (EU, USA and Canada), evidence of wider and more general forces determining their willingness to give food aid in the past (Uvin, 1994).

Yet, while the demand for food aid will increase as a result of the higher cost of commercial food imports brought about by the implementation of the Final Act, and for other reasons given above, the supply of food aid is now threatened by both a reduction of surpluses and by higher food prices, which will mean a smaller volume of food aid for given budgetary allocations. According to the Final Act, a balance between these two opposite forces will be found by

maintaining food aid at an 'adequate' level – presumably in volume terms to offset fluctuations in production and prices.

Cutting the historical link between surpluses and food aid may be a blessing in disguise. This link has always been a flawed motivation for food aid, leading to major tensions between donors' domestic agricultural interests and the developmental needs of developing countries, and to the controversy and criticisms surrounding food aid. We have heard a lot, for example, about possible disincentive effects of food aid on policy-makers and producers in recipient countries. We have heard less about the disincentives created by policy-makers in the industrial countries – that is, the continuation of harmful agricultural policies on the grounds that some of the resulting surpluses could be disposed of as food aid.

If, as a result of the Final Act, the hidden food aid 'which dares not speak its name' is now forced out into the open, it could be used purposefully for developmental and humanitarian (rather than short-run political and commercial) objectives. This would not only help to clear up the present conceptual and statistical quagmire but, more importantly, it would help to promote the fight for development, and against hunger and poverty, in developing countries, which, in turn, would greatly benefit developed countries.

A FUTURE FOOD AID REGIME

Two central questions arise concerning a post-Uruguay Round food aid regime: (i) what should its main features be; and (ii) how should it be administered?

Main Features

A future food aid regime should have four main features (Mellor Associates, 1992): (i) it should be seen to be serving *both* recipient and donor countries; (ii) food aid should be development-enhancing in recipient countries; (iii) provision should be made for food aid for stabilisation and emergency purposes through safety nets at times of disaster and economic adjustment; and (iv) close co-ordination should be established with financial and technical assistance.

The watered-down agreement reached in the Final Act seems likely to result in the continued generation of food surpluses and high subsidy costs in developed countries. Developing countries, where the

demand for food is highly elastic, provide the main growing commercial markets for food exports in the future. However, they lack the foreign exchange to buy all the food they need. As subsidisation of exports is to be disciplined under the Uruguay Round agreements, food aid may be the only outlet for exporting countries. *Bona fide* food aid is allowed under the Final Act provided it is untied, does not undercut commercial trade, and is given largely on grant terms.

Providing LDCs and NFIDCs with adequate levels of food aid would have three main benefits for developed and developing countries alike: (i) it would remove a substantial quantity of food from overhanging commercial markets, relieving pressure over a period of time during which agricultural adjustment could take place in developed countries, and commercial markets could grow in developing countries: in this way, food aid would help the shift towards market orientation and liberalisation in the developed and developing countries, the main objectives of Uruguay Round negotiations, rather than being a hindrance through dumping and surplus disposal practices; (ii) it would serve to prevent market marauding and the wasteful and damaging use of food and cash resources in export enhancement programmes; and (iii) it would help developing countries speed up the implementation of their development programmes, thereby increasing food consumption and the demand for commercial food imports.

A significant increase of food aid above its current level (as recorded in food aid statistics) would be required to support programmes in the developing countries for infrastructure improvement, human resource development – nutrition, health, education and training, and environmental protection and preservation that are needed for sustained and equitable development. This could be achieved by redirecting programme food aid and 'grey area' food aid, and using it for these purposes.

Conclusion of the Uruguay Round provides an immediate opportunity to use the unadjusted surplus food production of exporting developed countries that can no longer be sold at subsidised prices or otherwise disposed of as food aid for the benefit of poor and food-insecure people in developing countries. Advantage can be taken of the food aid provisions of the Final Act relating to public stockholding for food security purposes to facilitate these aims. Countries in Asia and Latin America would be in a position to absorb relatively rapidly large increases in food aid for their development programmes, assuming that it is provided in appropriate ways and on acceptable terms (WFP, 1994). Countries in Sub-Saharan Africa, on the other

hand, would require more pre-investment support before many of them would be able to absorb more food aid than they do in the mid-1990s.

The current multilateral arrangements for responding rapidly to emergency situations would largely be adequate if donors respected their provisions. An International Emergency Food Reserve (IEFR) was established in 1975. An annual target of not less than 500 000 tons was set for the IEFR, which should be a continuing reserve and placed at the disposal of the WFP to strengthen its capacity to deal speedily with crisis situations in developing countries as they occur. The IEFR was seen originally as a standby arrangement, with emergency stocks held in readiness in donor countries to provide WFP with an initial quick-strike capability. Donors are required to announce their contributions to the IEFR, which should be untied and undesignated, a year in advance.

To strengthen the speed of IEFR operations, an Immediate Response Account (IRA) was set up by the WFP's governing body in 1991 with an annual target of US$30m in cash, as an integral part of the Reserve, for the purchase of food close to where emergencies occur. For refugees and displaced people in protracted situations lasting more than one year, the WFP's governing body decided in 1989 that assistance should be provided from a sub-set of the WFP's regular resources, which are to be provided separately by donors in addition to their regular pledges to the WFP. These specific contributions are to be supplemented by up to US$30m a year from the WFP's regular resources.

Unfortunately, donors have not respected the terms of these facilities. Contributions have not been announced in advance. A high proportion of resources are tied and designated by donors to specific emergencies *after* they have occurred, eroding the multilateral nature of these facilities, and making it difficult to respond rapidly and flexibly to emergencies whenever and wherever they occur. Contributions to the IEFR have fluctuated considerably in response to demand. The WFP usually has access to about 100 000 tons of food at the beginning of each calendar year to programme for emergencies. Additional resources are mobilised through special appeals to donors, which can increase the lead time for delivery of emergency food aid by several months. Only 10 per cent of IEFR contributions were made in advance in 1994. Consequently, a timely and adequate response to all, especially less publicised, emergencies proved to be difficult. In 1994, cash contributions to the IRA were 71 per cent of the agreed target.

The WFP's response was therefore often inadequate in the initial phases of major emergencies owing to lack of cash resources (WFP, 1995b).

The special relationship envisaged between the WTO, IMF and World Bank and other UN agencies in the 'Marrakesh Agreement Establishing the World Trade Organisation' (GATT Secretariat (1994), pp. 6–18) could facilitate greater co-ordination of food aid with financial and technical assistance. It could also ensure that the desired macroeconomic framework and impact of food aid was attained, and that financial and food aid was integrated in support of development programmes in developing countries. These programmes could include activities designed to prevent and mitigate emergencies, reconstruction and rehabilitation projects after disasters have occurred, and safety nets for the poor during periods of policy reform and economic adjustment.

Institutional Framework

The establishment of the WTO could provide an institutional framework for food aid that has hitherto has been lacking. A number of bodies are currently concerned with food aid. Their work is largely uncoordinated, and sometimes conflictive.

The Executive Board of the WFP, which replaced the Committee on Food Aid Policies and Programmes (CFA) at the beginning of 1996 as a result of the implementation of United Nations General Assembly Resolution 48/162 (UN, 1993b), has the wider functions of helping to evolve and co-ordinate short-term and longer-term food aid policies as well as supervising and giving direction to the management of the WFP. In particular, the Board: (i) implements the policies formulated by the United Nations General Assembly and the FAO Conference, and the co-ordination and guidance received from the UN Economic and Social Council (ECOSOC) and the FAO Council; (ii) provides a forum for intergovernmental consultation on national and international food aid policies and programmes; (iii) reviews periodically general trends in food aid requirements and availabilities, and the implementation of recommendations made on food aid policies; and (iv) formulates proposals for more effective co-ordination of multilateral, bilateral and non-governmental food aid programmes, including emergency food aid.

The Board reports annually to the substantive sessions of ECOSOC and to the FAO Council on its programmes and activities and, as

appropriate, makes recommendations on food aid policies and co-ordination, including improvements in co-ordination at the field level. It has thirty-six members, elected equally by ECOSOC and the FAO Council. The predecessor of the Board, the CFA, had limited success in carrying out similar wider functions relating to all food aid, but did, for example, establish modalities for the operation of the International Emergency Food Reserve, which is administered by the WFP (WFP, 1978), and guidelines and criteria for the use of food aid from all sources (WFP, 1979).

The FAO Committee on World Food Security, which is open to all FAO member states, discusses food aid in the context of world food security issues. The Consultative Subcommittee on Surplus Disposal, made up of forty-five member countries (twenty-seven developing and eighteen developed), the EU and twenty-one observer countries, meets regularly in Washington DC to monitor the trade effects of food aid on a continuing basis. The Food Aid Committee, a non-UN body serviced by the Secretariat of the International Grains Council in London, whose membership consists of all parties to the Convention (currently Argentina, Australia, Canada, the EU and its member states, Japan, Norway, Switzerland and the United States), keeps under review the way in which the obligation undertaken under the Convention have been fulfilled. The IMF Executive Board decides on the application of the Fund's special facilities that provide compensatory and contingency financing. And, until its recent demise, the UN World Food Council, at its annual ministerial sessions, consisting mainly of ministers of agriculture, also considered food aid policies as part of its overall responsibilities for co-ordinating the activities of the UN system concerning food production, nutrition, food security and food trade. It has not yet been decided to which United Nations body the WFC's functions will be transferred.

The Final Act requires that negotiations should be initiated 'in the appropriate forum' to: establish an appropriate level of food aid commitments; review the level of food aid established periodically by the Food Aid Committee under the Food Aid Convention; and adopt guidelines to ensure that an increasing proportion of food aid is provided to LDCs and NFIDCs in full grant form. In addition, the LDCs have called for a special unit to be established in the WTO Secretariat to monitor progress in the application of special treatment that those countries should receive under the terms of the Final Act, including food aid (Islam, 1994).

Food aid and related issues will be discussed and decided upon within the WTO's Committee on Agriculture (COA). In view of the potential size and importance of food aid, a sub-committee on food aid might be established within the COA. The substantive work required to establish and review appropriate levels of food aid and draw up guidelines for food aid allocation might be given to the Executive Board of the WFP and the WFP Secretariat in accordance with their mandate and functions. However, this will need to be done in close co-operation with the other bodies concerned with food aid listed above, as well as with the IMF and World Bank.

At the operational level, once guidelines have been established for measuring the negative impact of the Uruguay Round (as distinct from other effects) on developing countries, and a list of eligible countries established, the IMF, World Bank, FAO and WFP could build assessments of food aid needs into the work of their field missions in drawing up policy framework papers, crop and food needs assessments and country strategy notes and outlines, which could be discussed and agreed upon in the WTO. Co-ordination of the work of these field missions could also ensure that food aid provisions would be related to other compensatory measures to offset the negative effects of the Uruguay Round, including financial assistance from the IMF facilities, special consideration in any future agreements on export credits and tariff preference schemes, and technical and financial assistance to improve agricultural productivity and infrastructure. WFP could be given responsibility for co-ordinating food aid supplies in accordance with agreed levels.

The amounts of food aid likely to be involved are manageable. Taking one projection contained in an OECD Development Centre policy brief (Goldin and van der Mensbrugghe (1992), pp. 10–11) that assumed a 30 per cent reduction in trade restrictions and agricultural subsidies (close to the agreement reached in the Final Act) over the period 1993 to 2002, it was estimated that annual global income gains of US$195bn (evaluated in 1992 dollars) would result from increased production and trade. About US$104bn would accrue to OECD countries and US$91bn to developing regions. A number of developing countries would lose, but their total losses of US$7bn would be small compared to global gains. Such losses could be compensated for by a transfer of 3.5 per cent of the gains, equivalent to less than 20 per cent of ODA.

In the 'Decisions on Measures Concerning the Possible Negative Effects of the Reform Programme on the Least-Developed and Net

Food-Importing Developing Countries' (GATT Secretariat (1994), pp. 448–9), it is recognised that 'as a result of the Uruguay Round certain developing countries may experience short- term difficulties in financing normal levels of commercial imports and that these countries may be eligible to draw on the resources of the international financial institutions under existing facilities, or such facilities as may be established, in the context of adjustment programmes, in order to address such financing difficulties'. In this regard, note was taken of the report of the Director-General to the contracting parties to GATT 1947 on his consultations with the Managing Director of IMF and the President of the World Bank (MTN.GNG/NG14/W/35, para. 37). Financial assistance from the IMF and the World Bank and food aid co-ordinated through the WFP could be provided as a package to deal with the adverse effects of the Uruguay Round on vulnerable developing countries.

If food aid was to maintain its present share in ODA, this would mean a 20 per cent increase in food aid deliveries. If total compensation was in the form of food aid, however, this would more than double the present level of statistically recorded food aid to around 30 million tons. To put this in perspective, the additional 15 million tons of food aid would be about half the size of one US-subsidised export enhancement programme announced by President George Bush in 1992 and recent food imports to the former Soviet Union, and somewhat more than a quarter as large as the increment expected in the commercial imports to developing countries over the next 15–20 years.

Much will depend on how effective the WTO will be in carrying out its mandate. Questions have also been raised concerning the precise working relationship of the WTO with the IMF and the World Bank in order to establish coherent policies and operations. The LDCs have expressed the hope that such collaboration will contribute positively to their development and not lead to increased conditionalities (Islam, 1994). The newly established WTO Committee on Agriculture has agreed on a notification format that will enable it to monitor follow-up action on the compensatory measures for LDCs and NFIDCs. The IMF, World Bank, FAO and WFP have obtained observer status in this committee.

It is also important to note that restrictive business practices, which were included in the Havana Charter of the abortive International Trade Organisation fifty years ago, are *not* included in the mandate of the WTO. Thus, there is no bar on multinational corporations exercising market power in international food trade to increase interna-

tional prices even more than the reduction in supply in itself would cause.[6]

This underlines the importance of a safety net for the food-importing developing countries, as envisaged in the Final Act. Such a safety net could either involve financial assistance, when it would involve the Bretton Woods institutions; or technical assistance to increase agricultural productivity, which would involve FAO; or food aid, when the WFP would be involved; or be trade-related, when it would involve discussions in the WTO; or be related generally to global governance, when it would involve the UN. A mixture of all these solutions would most probably be called into play.

Notes

1. Extended versions of this chapter have appeared in IDS Discussion Paper 352, Institute of Development Studies, September 1995; and *Food Policy* (1996), special issue on The Uruguay Round Agreement on Agriculture and Developing Countries.
2. That is, 'sales on credit, with payment to be made in reasonable annual amounts over periods of twenty years or more and with interest at rates which are below commercial rates prevailing in world markets: the credit sales agreement may provide for payment of up to 15 per cent of principal upon delivery of the grain'.
3. The 'governmental stockholding programmes for food security purposes in developing countries whose operation is transparent and conducted in accordance with officially published objective criteria or guidelines shall be considered to be in conformity (with the Final Act) including programmes under which stocks of foodstuffs for food security purposes are acquired and released at administered prices, provided that the difference between the acquisition price and the external reference price is accounted for in the AMS (Aggregate Measurement of Support)'. For the purposes of both public stockholding for food security purposes and domestic food aid, 'the provision of foodstuffs at subsidized prices with the objective of meeting food requirements of urban and rural poor in developing countries on a regular basis at reasonable prices shall be considered to be in conformity with the provisions' of the Final Act.
4. A UMR is a 'specific agreement by the recipient country to maintain at least a specified level of commercial imports in addition to any imports of the same commodities under the same concessional transaction' (FAO, (1992), p. 36).
5. The major importers of US agricultural products are Japan, the European Union, Canada, South Korea and Taiwan, in that order.
6. Restrictive business practices are dealt with separately in the United Nations' system, mainly in the United Nations Conference on Trade

and Development (UNCTAD), but given the lack of political and financial support, this may not have effective results.

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14 Hunger, Poverty and Human Development: Analysing the Debate between the UNDP and the OECD[1]

Kunibert Raffer

Describing involuntary poverty as an unmitigated evil persisting in spite of decades of development efforts, Paul Streeten (1994, p. 13) makes a trenchant distinction between development and human development: 'Yet all too often in the process of development it is the poor who shoulder the heaviest burden. It is development itself that interferes with human development.' Poor people, women, children, vulnerable groups are the victims of processes of transition; for instance, from subsistence to commercial agriculture, or from traditional to market relationships. There is thus a need to help the victims of transition, to cushion the frictions of social and economic changes on those who would otherwise suffer unduly. This very pithy presentation of human development shows an important shortcoming of present development and aid strategies – its insufficient focus on and help to the poor. The author points out that protecting vulnerable groups is not only fully justified as an end in itself, because the ultimate purpose of development is to promote human well-being, but it also increases the productivity of the poor, and improvements in living conditions result eventually in lower population growth. Human development is thus thrice blessed. Logically, one would therefore expect development co-operation to earmark a certain amount of funds for human development purposes.

The concept of human development comprises other dimensions in addition to economic development narrowly defined, such as longevity, access to knowledge, freedom, human rights, autonomy, self-respect and so on. Its most important indicators, combined into the Human Development Index, are life expectancy, educational attainment, and income.

The UNDP's *Human Development Report 1994* proposed the so-called 20:20 compact on human development. All nations should pledge to ensure the provision of at least very basic human development levels for all their peoples. While most countries can achieve such decent levels of human development by adjusting their budgets, some of the poorest countries would need substantial financial help from outside. The UNDP (1994, p. 7) underlines that 'No new money is required, because the compact is based on restructuring existing budget priorities.' In other words, an increase of Official Development Assistance (ODA), more or less stagnating during the few years before the UNDP's proposal was published, would not be needed. A shift is called for in favour of the poor, or against the interests of elites in Southern countries (SCs) and against donor's export and other interests. This shift has become even less likely after the perceptible fall of ODA in 1993.

The expression 20:20 derives from the suggestion that SCs should devote at least 20 per cent of their budgets to the compact's human priority expenditures, while donors should earmark 20 per cent of their ODA for these same priorities (UNDP (1994), pp. 7, 77). The compact's most important targets include:

- universal primary education (for both genders alike)
- adult illiteracy rates to be halved (the female rate must not be higher than that for males)
- primary health care for all
- elimination of severe malnutrition
- family planning services for all willing couples
- safe drinking water and sanitation for all
- credit for all to ensure self-employment opportunities.

This list, considered to be the 'very minimum targets' (UNDP (1994), p. 7), may sound universally acceptable. The DAC definition of aid states that the promotion of economic development and welfare must be the main objective of aid. Answering the question 'What is development?' the *World Development Report 1992* states:

> Development is about improving the well-being of people. Raising living standards and improving education, health, and equality of opportunity are all essential components of economic development. Ensuring political and civil rights is a broader development goal. Economic growth is an essential means for enabling development,

but in itself it is a highly imperfect proxy for progress.
(IBRD (1992), p. 34)

One might expect to encounter very little resistance to these targets, even if a donor might in fact be more concerned with using aid for selfish goals rather than for human or any other kind of development. Nevertheless, the UNDP's proposal sparked a brief but important debate with the OECD. This chapter will analyse this debate and elaborate on the differences between the two organisations as well as their respective theoretical influences. The last section warns that human development runs the risk of being abused to produce more officially 'successful' projects.

WHAT IS HUMAN DEVELOPMENT?

While the desirability of human development remains officially unchallenged, the question as to whether and to what extent aid actually promotes it is strongly debated. The UNDP (1993, p. 7; 1994, p. 73) presents data showing that – although the range between Denmark's 25 per cent and Germany's 2 per cent is substantial – less than 7 per cent on average of bilateral DAC aid is spent on human 'priority areas such as basic education, primary health care, rural water supplies, nutrition programmes and family planning services' (UNDP (1993), p. 7). The UNDP (1994, p. 7) therefore finds 'considerable scope for changing the allocation priorities in their aid budgets in the post-cold war era'. A similar picture emerges for multilateral aid, although multilateral institutions allocate more – around 16 per cent on average – to priority areas. As might be expected, UNICEF spends 77.8 per cent on human priorities. The African Development Bank is singled out as the multilateral institution with the smallest share (4 per cent).

Naturally, such figures are not very popular with 'donors', always eager to claim altruistic motives for their actions, as the expression 'aid' itself suggests. The OECD (1994, p. 98) defended its aid practice against the criticisms by the UNDP (1993), arguing that human priority concerns 'have long been prime areas of interest for the DAC and its Members', and were at the heart of the DAC's 1989 Policy Statement on Development Co-operation in the 1990s.

After confirming its total support for human development, the DAC tackles the problem of aid allocation. It argues that the figure

of less than 7 per cent of ODA is based on aid loans recorded transaction-by-transaction in the Creditor Reporting System administered by the DAC Secretariat. As loans account for only 20–25 per cent of bilateral ODA, and the 'sectoral allocation' (UNDP, 1993) of grants is substantially different, the DAC argues that the allowance made by the UNDP for this discrepancy is inadequate, but is unable to support this claim by any data. The OECD refers vaguely to 'other reporting to the DAC (the aggregate reporting system)'. As only donors report to the DAC, this means that donors themselves are not able (if not unwilling) to produce more precise data on how much of their aid goes to what they claim to be their prime areas of interest at the heart of their policy concerns.

The OECD then goes on to argue that aid to the water supply sector was even the subject of a special DAC meeting held in 1994. Its focus on sectors and expressions such as 'sectoral allocation' shows a further fundamental discrepancy between the DAC and the UNDP with regard to the concept of human priorities itself. The UNDP (1993, p. 68) criticised the wrong allocation within sectors. Demanding that ODA allocation be based on levels of poverty it stated *expressis verbis* that 'ODA should be allocated to people rather than countries.' (UNDP (1993), p. 7) The *Human Development Report 1994* reiterates that it is not allocation to sectors that matters, but allocation within sectors; that is, to individuals. While the presentation and definition of human development priorities could have been done in a more precise way in the UNDP's *Report* of 1993, thus possibly avoiding misunderstandings, the following statement is absolutely clear:

> The problem here is not so much the proportion of aid they [the donors] give to the social sector (16 per cent on average) as the distribution within the social sector. Less than one-fifth of education aid goes to primary education, and a similar proportion of aid for water supply and sanitation is earmarked for rural areas, with very little for low-cost mass-coverage programmes.
>
> (UNDP (1994), p. 7)

The *Human Development Report 1993* (UNDP (1993), p. 67) explicitly criticised the fact that higher-status projects get preference and that aid does not go to poor people, a criticism repeated and spelled out in 1994. Thus, urban water supply and sanitation gets preference over rural, receiving about 80 per cent of all funds in this sector, roughly four times as much as rural areas. Higher education is favoured over

primary education (which gets less than 20 per cent of sectoral expenditure), and urban hospitals get preference over primary health care, which is allocated only about a third of total aid expenditure on health (UNDP (1994), pp. 73 ff). The higher visibility of larger and more modern projects in not-too-remote areas is one reason mentioned for this allocation by the UNDP. Some donors appear to prefer to finance a new, modern hospital in a capital city – where a plaque at the entrance proclaims that it was financed by country X's ODA, or which is worthy to be given the name of the minister of development of donor Y, than to finance 200 health stations for paramedics or barefoot doctors somewhere in the bush, which benefit a large number of poor people.

The UNDP's focus on need cannot be invalidated by pointing at sectoral figures. Aid to any sector may go to the rich or the poor. For example, irrigation projects might be exclusively in the interests of the rich, strengthening their economic position, even enabling them to exploit the poor more thoroughly. The example of deep tube wells in Bangladesh – well-digging projects, quite often undertaken with good intentions, were popular in the donor community some time ago – illustrates this outcome very clearly. Jansen (1979) documents cases where access to water was immediately controlled by the rich and even used to the detriment of the poor. The famous 'Green Revolution' benefited the rich, exacerbating social disparities.

It should be remembered that the UNDP demands 20 per cent for human development priorities. This leaves 80 per cent for financing other development activities. It does not propose a total redirection in favour of the target of the 20:20 compact, but a balance between necessary development expenditures (in Streeten's sense) and attention to vulnerable groups.

The UNDP might have contributed to the misunderstanding. Its conclusion that ODA distribution is not linked to human development objectives is based on the shares of ODA or development finance received by SCs with 'two-thirds of the world's poor' or by high military spenders (UNDP (1993), p. 7; (1994), pp. 72ff). Apart from blurring the real focus – helping the poorest people – this is not logically convincing. Allocating more aid to Brazil, Indonesia, Vietnam or the Philippines would have resulted in more flows going to SCs containing 'two-thirds of the world's poor' – but would this aid necessarily have reached the poor in these countries? The OECD's logical flaw of using data on sectoral expenditures to defend its aid practice might thus have been provoked, at least to some extent, by

the UNDP. The OECD's assertion that neither the DAC nor its members know how much aid benefited the poor explains these attempts by the UNDP to argue via sectors or countries, simply because no fully adequate data are available. A plausible correlation between the regional distribution of aid and the global distribution of the poor is apparently seen as a necessary, though not a sufficient, condition for actually reaching the poor. The UNDP should have pointed out clearly that this is all that can be done with existing data. The non-existence of appropriate data in turn does not support the claim of donors that human priority concerns have long been prime areas of their interest. Goals to which governments have been committed for a long time are invariably well covered by statistics, true or crooked.

Defending its allocation the OECD confuses the UNDP's developmental concept of high human priority with humanitarian concerns, a mistake that might not have occurred if the UNDP's first *Report* (1993) had been as clear as its 1994 *Report*, although the 1993 *Report* is quite clear. It is true that aid to refugees and disaster victims is necessary and of high human priority, and it is highly commendable to help in such cases. But this is relief, and by no means what is meant by human priority development. The former helps in emergencies or after disasters; the latter is committed to long-term development, to changing economic and social structures. One could distinguish between them with the help of the old adage of the fish – relief means giving fish to people, human development means equipping them better to catch their own food. Both activities are necessary, important and laudable; but they are totally different and must not be confused with one another.

While part of the confusion could be accidental, and arguments might have been put differently if things had been clear from the start, there remains one most important and really fundamental divide between DAC donors and the UNDP. The last counter-argument of the OECD (1994, p. 98) brings it to light:

> Even more problematic is the question of how broadly the definition of 'human priority concerns' is drawn and how the various forms of aid interact with human priorities. The UNDP covers only aid going directly to the sectors identified above. But aid which assists general economic development, including aid to support economic stabilization, policy reforms and adjustments to public expenditure priorities, can have a wide impact on the access of poor

people to basic education, primary health care and family planning services.

This view defines everything as a human priority concern. In contrast to the UNDP's demand that 20 per cent be allocated to human priority concerns, this would mean an actual allocation of 100 per cent. Logically, of course, virtually anything may have positive effects on anything and anyone, including the poor. But this means that the OECD considers the very concept of human development – special projects aimed at the poor or other special groups – fatally flawed and logically unnecessary. By this statement the OECD posits that whatever is done by donors is likely to benefit the poor in any case. If this point is accepted there is no need to target any projects specifically on them. Quite conveniently, there is no need for detailed statistics on the actual impact of aid, nor for critique either. If accepted, this view destroys any logical basis for criticising any donor's aid policy on the grounds of its (lack of) impact on the poor.

By implying that any ODA and development finance activity benefits the poor, 'aid' is given a philanthropic slant, although it is simply a technical term covering helpful activities as well as greed or – at worst – outright catastrophes creating considerable damage in recipient countries.

The OECD's argument is particularly interesting when it comes to attempts to include military assistance under the term 'aid'. The USA started to include substantial amounts of military debt cancellations in its ODA statistics in 1990, and the OECD obliged its largest member by including them as aid, although with explanatory footnotes (see Raffer and Singer, 1996). Data on aid, including military expenditures (OECD (1994), p. 82), are published sixteen pages before the passage expressing the OECD's concern about too narrow a definition of human priority concerns. A cynic might wonder whether these military expenditures were believed to have had an impact on the poor as well. Nowadays military debt cancellations are no longer recognised as ODA by the DAC, although they qualify as ODA according to the DAC. The reason is the OECD's (1992, p. 86) concern over impacts on public opinion.

The thesis of the two opposing concepts is supported by the Chairman's Report on 1994 (OECD, 1995). Within about a year, the OECD reconsidered the 'policy importance of the UNDP recommendations' (OECD (1994), p. 98), simply refusing to discuss them. Instead, it restricted itself to one paragraph in its 1995 DAC

Report blaming the UNDP for undermining 'public and parliamentary support' (OECD (1995), p. 10) for aid. The debate with the UNDP is specifically referred to as 'an unfortunate fact' (ibid.) and as 'much more difficult to clarify and resolve with factual analysis than is often assumed', even by the DAC Secretariat with all its access to the most authoritative information in the field. Obscurantism in this field would, of course, have the effect of undermining public understanding and confidence, but so does the kind of debate that poses deceptively simple questions or unrealistic expectations to which donors cannot satisfactorily respond.

Comparing the two DAC Reports for 1993 and 1994 (OECD, 1994; 1995), one cannot help noticing a clear contradiction. The bottom line is that the OECD is unwilling to commit funds to the 20:20 compact, but has no good arguments to back that decision, particularly considering its past lip-service to humanitarian goals. Refusing further discussion, it retreats to ill-founded accusations. After the Copenhagen Summit of 1995 endorsed the UNDP's idea, this interesting debate was closed.

THEORETICAL CONCEPTS BEHIND THE DEBATE

Economically, the two opposing views may be reduced to whether aid should target the poor directly, or whether the benefits of development at large will eventually trickle down to all members of society. Put another way, it is a choice between a bottom-up strategy for development, and a top-down approach. Within this dichotomy the DAC position is a reformulation of the old 'trickle-down' model, which argued that growth would finally benefit everyone, since its positive effects, such as higher incomes, would eventually trickle down to the poor. Thus, helping the rich was not only necessary for development but would in fact amount to helping the poorest as well. Similarly, there is no need for special support of minorities, vulnerable groups, or women, since gender and all other issues will be solved benevolently to everyone's liking in any case. Of course, benefits may and even do sometimes trickle down to the poor, but empirical evidence shows that this has not happened on the scale envisaged by the supporters of this approach.

The trickle-down model might sound cynical, but it was essentially accepted by neoclassicists as well as by orthodox Marxists, a fact that induced Dudley Seers (1979) to write a paper on the congruence of

Marxism and other neoclassical doctrines. According to basic neoclassical teachings, the propensity to save increases with income. Poor people, especially those living near subsistence level, are very likely to consume all additional income. The rich, on the other hand, saving a larger part of their income, can, and do, invest. In countries where savings and capital are scarce, causing a large gap between domestic savings and necessary investment, redistributing income to the poor would therefore compromise future growth. Kuznets' findings on income distribution were immediately – and against the warnings of the author himself on generalising them uncritically – seen as the empirical validation of this reasoning. The inverted U symbolising increasing inequality during the first phases of development (measured by GNP per head) and a trend to greater equality after that period was fully in line with the trickle-down approach. Irrespective of Kuznets' own reservations, it thus acquired the status of an economic law. Many other models also fitted this perception, such as the famous Lewisian model of growth with unlimited supplies of labour. Once the modern sector has grown large enough, surplus labour and disguised unemployment disappear. Beyond this Lewisian turning point, benefits would spread widely and speedily, wages would increase, workers would live better, and the economy would emulate the structures of developed countries.

To avoid an undue caricature of past thought it should be mentioned that economic growth was also emphasised as the key to poverty eradication. Streeten (1993, p. 16) points out that sensible economists and development planners saw quite clearly even in the 1950s that economic growth is not an end in itself, but a performance test of development. Arthur Lewis defined the purpose of development as widening our range of choice, exactly as the UNDP's Human Development Reports do today. Even in the early days some sceptics said that growth is not necessarily so benign.

It was thought necessary first to build up capital, infrastructure, and productive capacity in a 'backward' economy, as this would eventually improve the lot of the poor. For quite some time, though, the poor would have to tighten their belts and the rich would receive most of the benefits. But if the rewards of the rich were incentives to innovate, to save and to accumulate capital, this could eventually be of benefit to the poor, and the early hungry years would turn out to have been justified. Classical, neo-classical, and palaeo-Marxist economists all agreed on this. Caveats on growth were thus eclipsed by a pervasive emphasis on the techniques of growth.

Orthodox Marxists, such as Bill Warren (1979), advocated helping capitalism to develop, sharing Karl Marx's view that the best way to abolish capitalism would be to help it develop more quickly. Marx argued that the stage of socialism can only be reached after capitalism has developed fully, the latter thus creating the material base for the former. Consequently, Marx saw capitalist developments in the South as a progressive factor helping to bring about the final doom of the system, as his views on India show. Seen from this perspective, investment and the creation of industries (and thus of proletarians) were of paramount importance as well. Until I.V. Lenin had to explain why a revolution could happen in little-developed Russia – rather than in England or Germany – this was generally accepted wisdom by Marxist thinkers. After Lenin turned Marx topsy-turvy by claiming that capitalism would first be overcome in a not-fully-developed capitalist country – just as the weakest link of a chain is the one that gives – scientists in now 'really existing socialist states' were well advised not to cling to this view of Marx.

In the West there were occasionally authors such as Nurkse (1952) and Adler (1952), who expressed concern that the rich might use their income for luxury consumption rather than for investment. This destroys the logical justification for trickle-down as a pro-poor growth strategy. But this concern was by no means the ruling view, nor was it the view of the ruling class in North and South, who were content with the status quo. This idea was taken up by *dependencia* thinkers later on, who argued that the rich – or, in their wording, the bourgeoisie – did not behave in a properly capitalist way – that is, they did not invest sufficiently in their own countries, thus depriving the South of needed development stimuli.

The fear that philanthropic approaches might 'waste' resources urgently needed for growth by taking from the rich, was so strong that more direct policies for the benefit of the poor needed strong technocratic justification. Paul Streeten (1993) describes briefly how direct policies in favour of the poor had to be defended. One argument supporting basic needs is that nutrition, health and education are important for fuller labour utilisation, and hence greater productivity. Better nutrition, health, education and training can be very productive forms of developing human resources. The book *Redistribution with Growth* (Chenery *et al.*, 1974), published for the Development Research Centre of the World Bank and the Institute of Development Studies at the University of Sussex, was an attempt to find a compromise between promoting growth and helping the poor. It

suggested that a proportion of incremental income would be taxed and channelled into public services, intending to raise their productivity.

Briefly put, strategies to help the poor had to be justified specifically by arguing that they would (at least indirectly) increase productivity. Thus they are not only consumption but (often with a lot of 'roundaboutness') investments too. The basic needs approach was presented as an approach 'to growth, employment, income redistribution, and poverty eradication' (Streeten (1993), p. 24). In other words, just helping the poor was not considered to be a legitimate objective of 'aid'. In contrast to export promotion, the incorporation of relief for military debt or other uses of ODA had to be explicitly and cumbersomely justified as legitimate.

The concept of basic needs was not more popular with the ruling class in SCs, a group who benefited from the trickle-down idea that everything helps the poor eventually. To many Southern elites, the idea that increasing their wealth is a developmental necessity and in the long-term interest of the poor was exceedingly appealing. The view that targeting the poor means wasting resources remained so influential that the first *Human Development Report* by the UNDP (1990) had to justify putting people back at centre stage. The basic arguments used to defend the UNDP's largely equivalent concept are the same as in the case of the basic needs approach:

> Human beings are both ends in themselves and means of production. Human development, properly interpreted, is thrice blessed. It is an end in itself; it is a means to higher productivity; and it reduces human reproductivity, by lowering the desired family size. This has been widely recognized, though it is odd that institutions like the World Bank accept without questioning Hondas, beer, and television sets as final consumption goods, while nutrition, education and health services have to be justified on grounds of productivity.
>
> (Streeten (1993), p. 27)

Seen from the *dogmengeschichte* of development, the OECD thus advocates a somewhat simplified (pre-Lewisian) 1950s view, which is apparently preferred to the UNDP's demand for widening choices. Both administratively and politically it is the more comfortable view for donors: by giving money to Baby Doc, Somoza, or Mobutu one does not only pay allies but also helps the poor.

What differs decisively from the 1950s is the OECD's clearly expressed statement that financing structural adjustment – 'aid to

support economic stabilization, policy reforms and adjustments to public expenditure priorities' (OECD (1994), p. 98) – benefits the poor as well. Or, by cutting food subsidies to the poor, by hitting vulnerable groups in the ways described by the seminal UNICEF study *Adjustment with a Human Face* (Cornia *et al.*, 1987), one acts in the interest of the poor. This opinion is maintained in spite of, and after, the publication of the great shortcomings of international financial institutions (IFIs), as well as the incapability of proving reasonable success of structural adjustment measures by the Bretton Woods Institutions (BWIs).

The OECD argument is identical to the stance of the BWIs at the beginning of the debt crisis, which – due to hard facts and public pressure – is no longer upheld by them. They insisted then that implementing structural adjustment had positive impacts and was in the interest of the poor. Special measures to protect them would thus be superfluous if not harmful. Emphasising human needs might even obstruct needed reforms (Jolly (1991), p. 1811). The World Bank (IBRD (1980), p. 62) described the 'major drawback' of efficient food subsidies as costly, often using up 'scarce foreign exchange or aid'. Current arguments are nicely summed up by the IMF's Wanda Tseng: structural adjustment costs are unavoidable and lower than the costs of non-adjustment. Efficiency gains will more than make up for structural adjustment costs. Financial help by the BWIs decreases these costs further. Bringing down inflation is of particular benefit to 'poorer groups... most likely to hold their savings in money form' (Tseng, 1984, p. 4).

Successful economic reforms benefit everybody, including the poor. Subsidies have to be abolished, as they are a huge drain on public expenditure. They discriminate against the rural poor, and create incentives for low wages industries thus leading to rapid urbanisation and slums. To be on the safe side, Tseng adds that the IMF has no mandate in any case with regard to the poor. Beckmann (1986) concurs, explaining the change in the IBRD's policy away from the poverty focus of the McNamara years as having been triggered by changed needs within SCs. A balance-of-payments equilibrium reached by growth of GDP and exports benefits the rich as well as the poor. Relying on market mechanisms does not mean less attention to the poor; planned actions are better than unplanned adjustment; sacrifices are necessary for a better future. The growth crisis made advances in poverty alleviation practically impossible. In line with his employer, the World Bank, Beckmann adds that many projects benefited the poor as well, even though the political climate of the 1980s

was not conducive to helping the poor. To support this argument he claims that most IDA and IBRD funds went to poor countries and sectors, whose projects are supposed to benefit the poor particularly – a statement that, as we have seen, may raise objections from statisticians. However, as its policy is decided by its members and in consultation with borrowers, the World Bank itself has – according to Beckmann – limited room for manoeuvring. Summing up, there was no reason for catering to especially vulnerable groups, such as women. Indeed, it might be harmful to do so.

Basically, this view was held until UNICEF's *Adjustment with a Human Face* (Cornia *et al.*, 1987) was published, although the BWIs were confronted by the effects of structural adjustment on the poor as early as 1984 (Helleiner *et al.*, 1991). After first rejecting the UNICEF study, special programmes to help those affected by structural adjustment are now officially accepted by the BWIs. They now argue that these programmes would make structural adjustment more acceptable and thus more efficient – the very point denied wholeheartedly a short time before. But, whatever the BWIs did, they have always claimed to help the poor. Their practice, however, changed very little. Stewart's (1991, p. 1847) finding that 'while there was a big change in rhetoric, little action has so far followed' still holds. Arguments and titles of publications have changed. Structural adjustment has essentially remained unaffected, in spite of severe criticism and even though it could not be proved empirically that it works. On the contrary, the successful 'tigers' in Asia have done the opposite of what a representative debtor country is forced to implement.

For quite some time the World Bank has contended that they have learned lessons, a view valid for the Bank as well as for all other IFIs engaged in structural adjustment. So far, however, it has failed to specify at whose cost. The poorest, who are most severely hit by structural adjustment, had to pay for the Bank's and other IFIs' tuition. In spite of the Bank's change of opinion, brought about by public pressure and by NGOs, the OECD still champions the old position now considered untenable by the BWIs. Given the relatively large amount of resources controlled by DAC members, this, too, bodes ill for the poor, particularly since similar tendencies towards less participation by the people, greater influence of donors, and less concern for alleviating the lot of the poor can be detected within the EU's Lomé framework. Recently the EU has supported quite outspokenly BWI-type structural adjustment – and thus its negative effects on human development.

A NECESSARY WARNING NOT TO ABUSE A GOOD CONCEPT

Given the current attitudes of the donor community there is a danger that the idea of human development might be perverted by donors and by some multilateral institutions. IFIs, most notably the World Bank after the Wapenhans Report, have started to shift their activities perceptibly towards financing projects without clear economic returns – that is, without an income stream in foreign exchange sufficient to cover debt service – to which defenders of human development would subscribe. Examples include institution building, which should facilitate democratic participation by the people, or, even more in line with essential human development, basic education.

An example of the latter is a local language school for indigenous children in Mexico financed by the World Bank. This is no doubt socially a highly commendable project. It serves human development priorities, and deserves to be financed. But financing such activities by loans, particularly by IFI loans, is not a viable way of offering support. Such projects may very often have 100 per cent local content, which is good for local development. But like, for example, efforts to build institutions, they cannot and are not expected to earn foreign currency income directly. One can hardly expect poor indigenous children in Mexico to pay school fees in US dollars. Nor does a newly improved legal system release an immediate stream of US dollars. Nevertheless, these loans have to be repaid with interest in foreign exchange. Institutional changes, such as the reorganisation of the legal system within a country, or reforms in the course of democratisation should thus not be financed by loans, particularly not at the expensive terms of 'development finance'.

While such changes are no doubt important for a sound framework of future human and economic development as well as democratic participation, they do not generate foreign exchange income directly and will have to be serviced out of the budget. In countries where debt service already puts heavy strains on the government, new loans not earning their own amortisation and interest service are bound to worsen the country's debt situation further. If undertaken on a larger scale, they will increase the debt burden of a country dramatically. Particularly for countries still suffering from considerable debt pressures and unable to honour large percentages of contractually due payments on time this must have highly negative economic consequences. This is especially so when debts carry the 'near-market'

interest rates usual with the World Bank or regional development banks. Such urgently needed projects must therefore be financed by other means, preferably by grants. If the evolution of democratic institutions or human development is really as important to donors as their rhetoric claims, they should be prepared to finance these commendable activities. According to economic theory, the willingness to pay reveals an actor's true preferences. Thus grants would be an opportunity for donors to prove the sincerity of their concern for the poor and their support for democracy or the rule of law.

The fact that the evaluation of such activities is particularly dependent on what the World Bank's Operations Evaluation Department called subjectivity of assessment or perceptions, which are 'difficult to explain fully' (IBRD, (1989), p. 15ff), should be a further caveat. Because these projects are by definition not expected to cover their costs, but to have long-run benefits for the whole economy, which cannot be properly assessed in the short run, the results can be substantially 'improved' – and the rate of unsatisfactory projects 'reduced' – by inexplicably positive assessments. Few or no hard economic data exist. The fact that the monetary equivalent of, say, primary education being extended to a larger share of the population, or of a more democratic system cannot be objectively established may prove extremely 'helpful' in this respect. It gives evaluators enormous leeway in defining 'success'. This is likely to be compounded by the effects of non-existent financial accountability. Without drastic changes the mechanisms that force the poor to pay for IFI inefficiency are likely to be further strengthened (see Raffer and Singer, 1996). Focusing loans and credits from multilateral institutions on these activities may be a means of hiding their inefficiency, simply because the effects of these particular projects, necessary as they are, cannot be measured objectively on a monetary scale. Thus the danger of being challenged on the grounds of efficiency will virtually be overcome by IFIs. Although even the gravest shortcomings have not yet led to reactions by their shareholders, this evolution would further decrease the likelihood of improvements in their management culture. The urge to survive, described so well by C. Northcote Parkinson, in relation to bureaucracies, is likely to win again.

This imminent danger, as well as the attitude of OECD donors, bodes ill for SCs, and particularly for the poor. There is reason to believe that – if and as far as the concept of human development might used by donors at all – it may be abused in order to promote donors' interests, very much as is political conditionality. The result

might be more projects in sectors classified as falling under 'human development' according to the opinion of the OECD but without tangible benefits to the poor. In the worst case, these activities could even harm vulnerable groups.

At present it is unlikely that the 30–40 billion dollars a year demanded by the UNDP for human priorities will be forthcoming, even if this could be achieved without the expenditure of additional money. The costs of eliminating malnutrition, one of the main targets on the UNDP list, may serve to show how little would be needed to alleviate hunger. The World Bank (IBRD (1980), p. 61) calculated that 'redirecting only about 2 per cent of the world's grain output to the mouths that need it' would be sufficient. Compared with other outlays, it would not be costly to feed the victims of transitions and global changes. Unfortunately even this small amount is unlikely to be financed.

Note

1. For valuable comments on an earlier version of this chapter I am indebted to Sir Hans Singer and Paul Streeten. The chapter is based on research for the book on aid by Raffer and Singer (1996).

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15 Irish Aid in Famines and Other Complex Emergencies

Helen O'Neill

The most striking development on the current global aid scene is a dramatic increase in the number of humanitarian crises and complex emergencies, and a corresponding rise in the demand for aid funds to deal with them. Although big fluctuations can occur from year to year, there appears to be a long-term upward trend in the numbers being affected by natural disasters such as droughts, cyclones and floods. Man-made disasters, such as war and civil strife, and their frequent consequences of famine and refugees, are also placing increasing demands on aid budgets.

Africa's worst-ever man-made disaster was in 1994 – the year of Rwanda – but the United Nations (UN) claims that there are almost thirty complex emergencies affecting around 60 million people worldwide each year. In addition, its Department of Humanitarian Affairs (DHA) reports that in 1994 there were 75 natural disasters in developing countries (UN: DHA (1995), pp. 132–5). The end of the Cold War, far from delivering a peace dividend, has exposed underlying racial and ethnic fissures in a number of regions, particularly within the former Soviet Union (FSU) and the Balkans, while extreme poverty allied to fragile and corrupt political regimes have exacerbated the effects of such tensions in parts of Africa and other developing areas. The number of refugees has more than doubled from 10 million to around 25 million since 1980; as a result of current wars (almost all intrastate) there are another 25 million internally-displaced persons (ibid., p. iii). The combined effects of all these man-made and natural disasters place enormous demands on aid programmes, both in terms of size and composition. Not only must growth be restored to aid budgets but, as the DHA puts it: 'Complex humanitarian emergencies frequently combine political, military, economic, social and environmental elements requiring an integrated approach to address them.'

Unfortunately, instead of experiencing significant growth, recent data suggest that any growth in aid flows will be very limited and,

in the words of the Development Assistance Committee (DAC) of the OECD, the outlook is for 'at best a stabilization of the DAC ODA/GNP ratio around the current level' (OECD, (1996), 89). The most recent data support this view.

DEVELOPMENTS AT THE LEVEL OF DAC

Total official development assistance (ODA) from members of the Development Assistance Committee (DAC) of the OECD fell from US$60.8bn in 1992 to US$56bn in 1993. Net disbursements in current dollars in 1993 were below 1992 levels for seventeen of the twenty-one DAC member countries. Ireland was among the four exceptions (the others being Luxembourg, New Zealand, and Japan). Proportionately, total contributions to multilateral institutions fell more sharply (down 13 per cent in real terms) than did bilateral flows (down 6 per cent). In 1994 there was some recovery in the overall flow. Total ODA from DAC countries reached US$59bn, up slightly from the previous year but still only steady in real terms and still short of the 1992 total. As a percentage of their combined GNPs, total ODA from DAC members fell from 0.31 per cent to 0.30 percent, the lowest level for over twenty years. A number of members continued to reduce their aid budgets (most importantly the USA, which is the number two donor), but the budgets of some others increased (most importantly Japan and France, number one and number three respectively). Once again, Ireland was among those countries that increased its aid in 1994.

Accompanying the trend toward stabilisation in the overall level of ODA flows, changes in the major components of aid programmes have also been emerging. More aid has been going to debt relief, and more donors have been providing aid in the form of grants rather than loans that are debt-creating. Within bilateral aid programmes the percentage of aid flows allocated to infrastructure and agriculture has been declining in recent years. The share of multilateral aid within overall ODA flows has also continued to decline. Indeed, according to the 1996 DAC Report, the fall in these flows would have been greater but for the substantial increase that has occurred in donors' contributions to those international agencies involved in emergency and disaster relief, including UNHCR, UNICEF and the World Food Programme (WFP). This increase complements increases in members' contributions from their bilateral aid programmes. Both increases are

a response to the growth in the number of humanitarian crises and complex emergencies in developing countries and transitional economies in recent years.

Total humanitarian aid provided bilaterally by DAC members, which had been around US$1bn in the mid-1980s, increased dramatically to US$2.8bn in 1991. By 1993 it had risen to US$3.6bn. In the three-year period 1990 to 1993, humanitarian aid went up from less than 3 per cent to over 8 per cent of bilateral aid flows (OECD (1995), p. 2). Expenditure by the UN agencies has been affected similarly.

The programme heading Humanitarian and Emergency Aid in DAC statistics includes two sub-heads: 'Emergency and disaster relief' and 'Food aid allocated to emergency relief'. The former includes within it all aid to refugees. The latter sub-head includes both refugees in developing countries and refugees who have sought asylum in DAC countries. Under current reporting guidelines, the costs of the first year of upkeep of refugees in DAC countries is countable as ODA if the DAC member so chooses. An increasing number of members are taking this choice; among them is Ireland. Total ODA reported by DAC Members for refugee relief (in developing countries and in DAC member states) rose from US$226m in 1989 to US$2.5bn in 1994.

Expenditure under emergency and disaster relief (which includes refugees but excludes food aid for emergencies) rose from US$266m in 1982–83 to over US$1bn in 1990, and by 1994, it had grown to over US$3.4bn. As can be seen from Table 15.1, the rise in expenditure under this heading has been significant for all DAC members. Between 1990 and 1994, overall expenditure increased by a factor of three. In the case of a number of individual DAC members, it increased by a much higher factor. From the data in Table 15.1, it would appear that expenditure on emergency and disaster relief had already peaked by 1993, but in the case of five DAC members (among them Ireland), it continued to grow in 1994.

The need to spend increasing amounts on disaster relief is forcing all those involved in development co-operation – multilateral agencies, bilateral donors, and NGOs alike – to make difficult decisions about the distribution of their aid between short-term assistance for emergencies and aid for long-term development. The DAC Report states that donors need to accept that complex emergencies (the most tragic recent examples have been in Rwanda and Somalia) are part of the contemporary environment for development co-operation and thus should not be seen to be in competition with development

requirements. In order to ensure that aid efforts are fully co-ordinated with other policy instruments and are promotive of sustainable development in areas affected by disasters, there is a need, according to the DAC Report, 'to integrate our actions so that long-term development factors are taken into account from the very beginning of humanitarian relief operations' (OECD (1995a), p. 3). The relatively new expenditure heading of Rehabilitation is designed to facilitate this type of integration by financing the phase during which countries are emerging from crisis situations but are not yet in a position to regenerate the process of long-term sustainable development.

Table 15.1 Expenditure by DAC countries on emergency and distress relief, 1982/83 and 1990–4 (US$m)

	1982/83	*1990*	*1991*	*1992*	*1993*	*1994*
Australia	9	12	13	30	27	25
Austria	1	44	94	146	123	127
Belgium	1	5	6	13	19	14
Canada	22	46	85	79	249	228
Denmark	16	108	53	105	77	79
Finland	4	71	102	62	22	27
France	–	–	–	26	125	122
Germany	17	45	415	680	550	393
Ireland	–	2	3	2	5	9
Italy	9	104	456	137	342	105
Japan	3	26	20	15	40	31
Luxembourg	–	4	10	7	8	5
Netherlands	15	64	110	197	303	302
New Zealand	1	4	2	5	5	5
Norway	21	89	78	86	113	181
Portugal	–	–	–	–	8	4
Spain	–	5	8	6	8	5
Sweden	63	124	182	343	277	334
Switzerland	13	47	68	69	67	81
UK	4	38	116	57	187	261
United States	67	221	596	521	669	1132
Total DAC	**266**	**1059**	**2417**	**2586**	**3224**	**3470**

Notes: – = nil or negligible.
Sources: OECD (1995 and 1996).

As already noted, Ireland was one of only four DAC members that increased its aid budget (called Irish Aid) in 1993. It also increased it

in 1994. If current targets are achieved, it is on line to reach 0.4 percent of GNP in 1997, which would be well above the DAC average. In common with other Members, it has been devoting an increasing proportion of its aid budget to famine relief and other humanitarian assistance since around 1995. Before examining these trends, however, it is appropriate to take a brief look at the overall performance of Irish Aid in 1994 and the outlook over the next few years.

IRISH AID PERFORMANCE SINCE 1993

The year 1993 was a major turning point for Ireland's aid programme and the evolution of its aid policy. Expenditure had increased significantly in line with promises made in the *Programme for Government*, targets were established for further annual increases up to 1997, and a *Strategy Plan* had been published which sets out the medium-term priorities for the expanded aid programme (O'Neill, 1994). Since similar promises to increase Irish aid had been made in the past, 1994 was in an important sense the year of the first real test of the resolve of the government to sustain the implementation of its targets and policy priorities over the medium-term.

It turned out to be another positive year for the Irish aid programme. Overall, expenditure was in line with budgets. The process of institutional change was further advanced, most notably in relation to development education, by strengthening structures to promote public awareness and understanding within Ireland about development situations and issues and the Irish aid programme. The year was also notable in that the Development Assistance Committee (DAC) of the OECD, which reviews the aid programmes of its members every three years, carried out a review of Irish Aid in September 1994. Finally, as part of an extensive process of consultation in preparation for the publication of a White Paper on Foreign Policy in 1995, the Tanaiste and Minister for Foreign Affairs, Mr Dick Spring TD, launched a series of public seminars on foreign policy, the first of which, on development co-operation, was held in December 1994.

Table 15.2 provides an overview of total aid and its distribution between bilateral and multilateral flows from 1985 to 1995. It also allows an initial examination of those trends to see whether the government's medium-term targets are likely to be met.

Table 15.2 Irish aid, selected years 1985–95

	1985	*1990*	*1992*	*1993*	*1994*	*1995*
Total ODA (IR£m)	39.9	34.6	40.3	54.7	75.2	89.0
Administration	0.5	0.8	1.0	1.1	1.4	1.8
Bilateral aid	15.4	13.0	15.2	26.8	38.1	53.3
Multilateral aid	23.1	20.8	24.1	26.8	35.7	33.9
Bilateral as percentage of total ODA	39.0	38.0	38.0	49.0	51.0	60.0
ODA as percentage of GNP	0.25	0.16	0.16	0.20	0.24	0.27[e]

Notes: [e] = estimate.
Sources: Department of Foreign Affairs, annual reports and data supplied in May and July 1995 and May 1996.

It is appropriate to recall the content of those targets. The *Programme for Government*, published in January 1993, stated that ODA would be substantially increased in 1993 (to 0.2 per cent of GNP) and by 0.05 per cent of GNP each year thereafter, so as to 'make steady progress toward achieving' the UN target of 0.7 per cent of GNP and specifically to reach a medium-term target of 0.4 per cent of GNP by 1997. According to the *Strategy Plan*, total nominal flows of ODA should be around IR£90m in 1995, IR£110m in 1996, and IR£135m at the end of the period in 1997. As with targets in the past (O'Neill (1994), pp. 132–4) these are not without their complications – or their possibilities for alternative measures of achievement. For example, if GNP grows faster up to 1997 than was forecast at the time the *Strategy Plan* was prepared, then if the target in nominal pound terms is reached or surpassed the target in percentage of GNP terms will be undershot or, if the latter target is attained, then the former one will have to be revised upwards from the medium-term target of IR£135m. Of course, if growth of GNP is slower than originally forecast, then these outcomes will be reversed – but the possibility of divergence between the two targets remains. One of these targets has to be dominant; for the DAC and for most NGOs, the percentage of the GNP target is the preferred one.

Estimates of GNP for 1993 and 1994 used by the Department of Foreign Affairs in early 1994 (IR£27.5bn and IR£29.5b respectively), turned out to be lower than later outturns (IR£28.5bn and IR£31.1bn) according to estimates published by the Central Bank in 1995 (Central Bank (1995), p. 80). In relation to the bilateral/multilateral distribution of Irish ODA, the *Strategy Plan* stated that the former would

grow at a faster rate than the latter in the medium term, and set the objective of a two-to-one ratio for 1997. As can be seen from Table 15.2, the two were identical in 1993; and in 1994 the bilateral portion had become the bigger of the two, at 54 per cent of total ODA. For 1995, it was estimated that the bilateral/multilateral division would be 60:40.

Table 15.2 shows the growth of total ODA since 1990. It also highlights the contrast between that growth and the more erratic trend that characterised the earlier years of the 1980s. The faster growth that is occurring on the bilateral side compared with the multilateral is also clearly evident. To facilitate analysis of expenditure under various headings below (particularly under humanitarian aid), it is relevant to point out that 'bilateral aid' consists of monies voted under Vote C (the bilateral aid programme or BAP) plus monies voted for the Agency for Personal Service Overseas (APSO), emergency assistance and refugees. Finally, Table 15.2 also shows ODA to GNP ratios for the selected years.

Data published by the Department of Foreign Affairs in their 1993 and 1994 *ODA Annual Reports*, together with further data kindly provided by them in April 1994, and May and July 1995, have together provided the basis for compiling Tables 15.3 and 15.4. These compilations attempt to set out information on bilateral and multilateral expenditure for 1993, 1994 and 1995 in a way that facilitates comparisons between budgets and outturns on the one hand, and between provisional outturns (as provided in April, May or July) and actual outturns (as published in the *Annual Reports* in December) on the other. Budget figures for 1995 are also presented. Administration costs are omitted from these tables because there is no way of apportioning them between the two expenditure headings.

The outturn figures for 1994 show that overall expenditure coincided with the budgeted figures in both cases. On the bilateral side, total expenditure was IR£38.1m, compared with a budget figure of IR£38m. However, Table 15.3 also shows that spending under a number of individual headings differed from budgeted figures in a number of instances. The main increase occurred under emergency humanitarian assistance, which was up by IR£1.8m. This arose out of a cabinet decision to provide an extra IR£2m to Rwanda at the height of its emergency. This increase in humanitarian assistance is very much in line with what is happening on other DAC aid programmes and, as has already been noted, is likely to continue to be important in the medium term at least.

Table 15.3 Comparisons between budgeted expenditures and provisional and actual (A) outturns under the bilateral aid programme for 1993, 1994 and 1995 (IR£m)

	1993			*1994*	*1995*
	P	*A*	*B*	*P*	*B*
Priority countries	8.4	9.3	14.3	11.8	20.0
Lesotho	2.6	2.6	4.0	3.2	4.0
Tanzania	2.9	3.1	4.1	3.0	4.8
Zambia	2.4	2.9	3.4	3.1	4.5
Sudan	0.5	0.5	0.6	0.5	0.6
Uganda		0.1	1.1	0.7	3.3
Ethiopia		0.1	1.1	1.3	2.8
Other countries	2.5	1.7	4.1	2.7	4.4
Co-financing with NGOs	1.5	2.5	3.2	4.0	4.3
Co-financing with multilaterals	1.0	1.0	1.5	1.2	1.5
Education and training	1.3	1.4	1.5	1.3	2.0
Development education	0.5	0.5	0.8	0.7	1.1
APSO	4.5	4.7	7.0	7.0	8.5
Emergency humanitarian assistance	3.3	4.5	4.0	5.8	5.0
Refugees		0.8		0.6	0.6
Rehabilitation				1.4	3.5
Programme support	0.4	0.3	1.1	1.1	1.6
Democratisation		0.1	0.5	0.5	0.8
Total bilateral aid	**23.4**	**26.8**	**38.0**	**38.1**	**53.3**

Notes: P = provisional; A = actual; B = budgeted.
Sources: Department of Foreign Affairs, ODA Annual Report 1993, ODA Annual Report 1994, and data kindly supplied April 1994, and May and July 1996.

Another heading under which there was major new expenditure during 1994 was the related heading of rehabilitation. As already noted, this type of aid attempts to finance the phase during which countries are emerging from crisis situations but are not yet in a position to regenerate the process of long-term sustainable development. The elements of rehabilitation programmes include the creation of civil society, training, and rebuilding damaged infrastructure. The countries assisted under this programme in 1994 were Mozambique and Somalia. In 1995, Rwanda and Bosnia were added to the list.

Savings were made elsewhere on the bilateral side to compensate for these unbudgeted expenditures. Most of the reductions occurred on

the country programmes, IR£2.7m on the priority countries and IR£2.2m on other countries. Co-financing with multilateral institutions at IR£1.2m was 20 per cent lower than budgeted. In contrast, co-financing with NGOs (much of it for emergency humanitarian projects) was 25 per cent higher. Expenditure on development education, on which the DAC has called for significantly greater effort, also fell somewhat short of its 1994 budgeted figure.

Another, but related, point that emerges from an examination of Table 15.3 is the difference between the actual and the provisional outturns for 1993. The difference of around IR£3m is explained by increases under three headings: emergency humanitarian assistance, refugees, and co-financing with NGOs. Here again, emergencies accounted for increasing amounts of bilateral aid expenditures.

Two further points can be made about Table 15.3. The first relates to the sub-heading 'Refugees'. This relates to expenditure on first-year costs within Ireland (principally by the Departments of Social Welfare and Education) on refugees who have sought asylum in Ireland. Expenditure by Irish Aid on refugees in developing countries is included under Emergency Humanitarian Assistance. The second point worth noting from Table 15.3 is that Irish Aid had already opened up a sub-heading for 'Rehabilitation' in 1994, two years before the report produced by the international team that evaluated emergency assistance to Rwanda (Steering Committee, 1996) recommended that donors should 'allocate designated resources to "recovery funds" as a category distinct from emergency relief funds on the one hand and longer-term development funds on the other' (ibid., p. 53).

In sum, it can be concluded that the relative weight of emergency humanitarian assistance by Irish Aid compared with long-term spending increased during 1993 and 1994. If total expenditure is divided into three main sub-divisions classified by time period; that is, long-term aid for sustainable development, short-term emergency aid, and rehabilitation (what might be called the in-between stage), then spending on emergencies and on rehabilitation has grown very significantly compared with spending on long-term sustainable development. Of course, spending under the latter heading also grew over the two years – and was budgeted to increase very significantly in 1995 under the country programmes. Nevertheless, growth on these two fronts is clearly possible only if the total aid budget is increasing at the same time. And the relative share of humanitarian assistance and that of BAP as a whole will need to be monitored continuously over the next

few years to see whether or not a relative decline in long-term development spending is emerging (O'Neill, 1995).

IRISH AID EXPENDITURE ON HUMANITARIAN ASSISTANCE

According to the DAC, Irish Aid spent US$5m or 12.1 per cent of its bilateral aid budget on emergency and distress relief in 1993 and US$9m, or 16 per cent, of its bilateral aid under this heading in 1994 (OECD (1996), p. A28). These figures do not tally with Irish Aid's data relating to its expenditure on emergency humanitarian assistance (Table 15.3), either in dollar or in percentage terms. However, it is not difficult to explain the differences between them. Employing an average exchange rate of around US$1.5 to IR£1, the DAC figures do correspond with two figures from Irish Aid for the two years in question (IR£3.3m in 1993 and IR£5.8m in 1994) – but for 1993 the correspondence is with the provisional outturn figure and for 1994 it is with the actual outturn figure. When data on the actual outturns (columns 2 and 4) are examined, it is seen that the expenditure in dollar terms in 1993 was around US$7m and not US$5m as published by DAC. Thus, as percentages of total bilateral aid, expenditure on emergency aid by Irish Aid was 16.6 in 1993 and 15.3 in 1994. These percentages can be compared with those of the UK (12.1 and 14.8) and with the DAC average (8.2 and 8.4) for the two years. Table 15.4 shows expenditure by Irish Aid on emergency humanitarian assistance for the years 1984 to 1995.

Overall, Table 15.4 shows that expenditure on emergency humanitarian assistance has been garnering an increasing proportion of the Irish aid budget since the mid-1980s and that the greatest change has occurred over the past few years. Despite the fact that the Irish aid budget is on an upward trend, the evidence contained in Table 15.4 underscores the concern that aid for long-term sustainable development could be constrained by demands for responses to the growing number of emergencies world-wide. From Table 15.3 it might appear that expenditure on emergencies peaked in 1994, and that the budgeted figure of IR£5m for 1995 represents a significant downturn. However, according to provisional data supplied in May 1996 (and shown in Table 15.4), the outturn for 1995 will be IR£5.65m. This is very similar to the 1994 figure and represents 6.4 per cent of total ODA and 10.6 per cent of bilateral aid for that year.

Tables 15.5, 15.7 and 15.8 show expenditure on humanitarian assistance classified by NGO agency through which it was delivered, by country or region in which it was spent, and by main sector (famine, refugees and so on). In Table 15.5, the expenditure is broken down by agency. Over the period 1984–95, over IR£26m was spent by Irish Aid on humanitarian assistance. Of this amount, just over IR£15m, or 58 per cent was delivered through Irish NGOs; IR£15.3m (or 31 percent) through international organisations such as the ICRC and UNHCR; and IR£2.8m (or 11 per cent) is unclassified. The largest single agency through which this aid was delivered was Concern, which is also the biggest development NGO in Ireland (indeed, it has now become international). The other two big Irish development NGOs, Trocaire and Goal, received the next largest amounts (IR£2.5m and IR£2.7m respectively) over the period. These latter two NGOs are fairly similar in terms of total overall expenditure, taking one year with another, and it is interesting to note from Table 15.5 that grants to them from Irish Aid for humanitarian assistance have also reflected their relative sizes over the years. Indeed, grants for humanitarian assistance to all the Irish NGOs from Irish Aid tended to reflect their relative sizes in almost all cases throughout the period under review.

Table 15.4 Expenditure on emergency humanitarian assistance (EHA) by Irish Aid, 1984–95 (IR£000s)

	Total ODA	*Bilateral aid*	*EHA*	*EHA as a percentage of*	
				Total ODA	*Bilateral aid*
1984	33 234	12 799	1 150	3.5	9.0
1985	39 034	15 427	1 229	3.1	8.0
1986	40 535	18 300	805	2.0	4.3
1987	39 089	17 290	715	1.8	4.1
1988	32 362	13 596	900	2.8	6.6
1989	34 533	12 681	935	2.7	7.3
1990	34 647	12 952	1 613	4.7	12.4
1991	45 700	14 286	1 800	3.9	12.6
1992	40 300	15 182	1 815	4.5	12.0
1993	54 700	26 800	4 450	8.1	16.6
1994	75 200	38 000	5 804	7.7	15.3
1995	89 000	53 300	5 650	6.4	10.6

Source: Derived by the author from Department of Foreign Affairs, annual reports and data kindly supplied in August 1995 and May 1996.

Table 15.5 Emergency humanitarian assistance, classified by receiving agency, 1984–95 (IR£000s)

	Total EHA	*Concern*	*Goal*	*Trocaire*	*Other Irish*[a]	*ICRC/ UNHCR*	*Other international*
1984	1150	70	95	0	727	258	0
1985	1229	190	7	25	601	406	0
1986	805	125	175	135	53	204	113
1987	715	210	40	85	65	100	215
1988	900	375	240	0	125	95	65
1989	935	335	190	100	180	50	80
1990	1613	260	85	60	410	75	723
1991	1800	480	80	380	405	195	260
1992	1815	192	75	100	413	510	525
1993	4450	887	697	592	392	1200	682
1994	5804	1650	746	479	1307	955	667
1995	5650	460	335	602	1214	1755	1284

Notes: [a] includes Christian Aid, Oxfam Ireland, Irish Red Cross Society, World Vision, Refugee Trust, Rape Crisis Centre, as well as Irish Aid contributions to national appeals for Band Aid, Somalia and Rwanda.
Source: Derived by the author from Department of Foreign Affairs, annual reports and data kindly supplied in August 1995 and May 1996.

Almost a third of Irish Aid humanitarian assistance grants were given to international organisations, principally the ICRC and UNHCR. Among the others, the United Nations Children's Fund (UNICEF), the World Health Organisation (WHO), and the World Food Programme (WFP) figured prominently.

Given the extraordinary response of the Irish public to appeals by Irish NGOs in times of acute emergency in developing countries, it is interesting to compare the amounts spent by Irish Aid with those spent by the NGOs under the heading of emergency humanitarian assistance. Information was sought and received from the same three biggest Irish NGOs as were identified above. Although the coverage was not the same in all cases (mainly because of the shortness of the time given them to respond), the data they provided allow for some very interesting comparisons to be drawn.

In Table 15.6, comparative information is presented for the four main providers of humanitarian assistance (governmental and non-governmental) for the year 1994. The total spent on

emergency humanitarian assistance by the three biggest NGOs was IR£31.7m. From this, IR£2.7m is subtracted (Irish Aid's grants to them), to give a net total of IR£29m. Together with official expenditure by Irish Aid of IR£5.8m, this produces a total of IR£34.8m. It is safe to assume that the other Irish NGOs contributed at least IR£200,000 from their own funds to emergency assistance. Thus, at least IR£35 million, or around IR£10 per head, was contributed by Irish people to emergencies in developing countries in 1994.

Table 15.6 Expenditure on emergency humanitarian assistance by Irish Aid compared with Concern, Trocaire and Goal, 1994 (IR£m)

	Total expenditure	*Emergency expenditure*	*Emergency as percentage of total*
Irish Aid (bilateral only)	38.0	5.8	15.3
Concern	45.0	23.0	51
Trocaire[a]	9.2	4.8	52
Goal	6.8	3.9	57

Notes: 1/3/94–28/2/95.
Sources: Data supplied to the author by the department of Foreign Affairs, Concern, Trocaire and Goal in August 1995.

From Table 15.6 it is clear that the three biggest Irish NGOs now devote over half of their total expenditure to emergency assistance. However, this was not always so. In the case of Concern, the share as recently as 1990 was less than 1 per cent. It increased to 6 per cent in 1991, 23 per cent in 1992, 38 per cent in 1993, and reached 51 per cent in 1994. In the case of Trocaire (which supplied data for each year since its inception in 1973), up to 1984 the share was normally below 15 per cent. The significant change came in 1985 with the famine in Ethiopia, when the share jumped to over 40 per cent. Since that date it has fluctuated between 22 per cent (1992) and 40–50 per cent; in 1994 it was 52 per cent. Finally, in the case of Goal (which supplied data for the three years 1992–4), the share has gone from 23 per cent in 1992, to 72 per cent in 1993, and 57 per cent (the highest of the three agencies) in 1994.

According to Irish Aid, there are a number of principles underlying its expenditure under the heading of emergency humanitarian assistance. These are:

(i) It has an African focus;
(ii) It tries to maintain a balance among the areas in Africa that are assisted;
(iii) It is allocated to Irish or African NGOs or to international organisations that are perceived by Irish Aid to have the capacity to administer it; and
(iv) Irish Aid respects neutrality and impartiality in granting emergency assistance.

Table 15.7 Emergency humanitarian assistance, classified by receiving country or region (IR£000s)

	Total EHA	*Ethiopia*	*Sudan*	*Somalia*	*Great Lakes Rwanda*	*Other Africa*[a]	*Asia*[b]	*LA/Me*[c]	*FSU/ex-Yugoslavia*[d]
1984	1150	745	148	0	0	247	0	10	0
1985	1229	465	181	0	0	352	65	166	0
1986	805	154	310	35	0	170	27	109	0
1987	715	371	25	25	0	159	85	50	0
1988	900	0	515	0	0	40	245	0	100
1989	935	450	375	0	0	30	50	30	0
1990	1613	415	310	0	0	150	55	333	350
1991	1800	505	300	25	0	75	300	595	0
1992	1815	50	100	805	0	300	200	50	310
1993	4450	103	1260	130	0	1003	345	90	1519
1994	5804	176	603	38	3333	874	350	30	400
1995	5650	0	420	0	1500	1400	370	160	1800

Notes:
[a] Mainly Mozambique, Angola, Liberia, and special African appeals.
[b] Mainly Bangladesh, Cambodia, Afghanistan, India.
[c] Central and South America and the Middle East (Iraq, Iran, Jordan, Occupied Territories).
[d] Chechnya, Chernobyl, Georgia, Armenia, Azerbaijan, Bosnia, Croatia.
Sources: Derived by the author from Department of Foreign Affairs, annual reports and data kindly supplied in August 1995 and May 1996.

Table 15.7 shows expenditure by Irish Aid on emergency humanitarian assistance for the years 1984–95. This table facilitates a testing of the first of these principles. An examination of this table shows that emergency humanitarian expenditure by Irish Aid did indeed focus on Africa. If total humanitarian expenditure for the whole period is aggregated, IR£18.7m or 70 per cent of IR£26.8m was spent on Africa. Most of this was directed to the areas of greatest disaster: Ethiopia, Sudan, Somalia and, most recently, Rwanda. In 1994 ('the

year of Rwanda'), IR£3.3m was provided for that country and some surrounding areas within the Central African Great Lakes region alone. This represented 57 per cent of total humanitarian expenditure by Irish Aid during that year. Apart from Africa, the other major area where humanitarian aid was spent was the former Yugoslavia (mainly Bosnia). Over IR£3.7m was spent there between the beginning of 1993 and the end of 1995. Almost a third of total humanitarian expenditure was spent there during 1995.

Apart from Bosnia and other disaster-prone areas of the Balkans and the FSU, in which the NGOs are reluctant to get involved, there is a great overlap between the countries to which Irish Aid makes grants and those assisted by the Irish NGOs under the heading of emergency humanitarian aid. This is not surprising, since Irish Aid provides most of its grants to these same NGOs. In both cases, the variations in their humanitarian expenditures by country mirror the peaks and troughs of disasters in Africa.

Table 15.8 shows Irish Aid expenditure on emergency humanitarian assistance classified by sector. The classification system used is very arbitrary, especially for the most recent years. In the case of disasters and emergencies, the prime cause may be natural (floods, earthquakes, droughts) or man-made (for example, intrastate or interstate conflicts). The emergency may appear in the form of a famine, displacement of persons or refugees, or destruction of buildings and infrastructure – and often, all of these together. Thus, sub-dividing emergency expenditure spent in, say, Somalia or Rwanda into its components of famine, refugees and so on can be very difficult if not impossible.

Indeed, in the case of complex emergencies (described as complex for that very reason), subdividing expenditure into famines, or refugees, war victims or emergency food and shelter is probably never accurate. What has been done here is the following: for the years 1984–91, data taken from the annual ODA reports of the Department of Foreign Affairs were classified according to the descriptions used in those reports. For the years 1992–5, the classifications attached to the data provided to this writer by the Department in May 1996 were used.

An examination of Table 15.8 shows that the single biggest share of humanitarian assistance was spent on refugees (the heading under which expenditure in Rwanda was classified) for the period as a whole. However, if single years are considered, then this is true only since 1993. For the previous nine years covered by the table, famine was the single biggest heading.

Table 15.8 Emergency humanitarian assistance, classified by type, 1984–95 (IR£000s)

	Total EHA	*Famine*	*Refugees/ displaced persons*	*War victims*	*Natural disasters*	*Emergency food/ shelter/medical aid*
1984	1150	1033	30	10	50	27
1985	1229	798	211	5	215	0
1986	805	499	162	14	130	0
1987	715	479	71	40	125	0
1988	900	0	70	40	790[a]	0
1989	935	525	0	30	0	380[b]
1990	1613	750	75	158	175	455[c]
1991	1800	755	750	0	275	20
1992	1815	1040	380	310	25	60
1993	4450	1246	749	1400[d]	305	750[e]
1994	5804	426	4727[f]	651[g]	0	0
1995	5650	600	2000	900	620	1530

Notes: [a] Mainly flooding in Sudan.
[b] Mainly meningitis epidemic in Ethiopia.
[c] Mainly medicines to Romania and USSR.
[d] Mainly Bosnia, Croatia, Macedonia.
[e] Mainly Angola.
[f] Mainly Rwanda (all classified as refugees/displaced persons).
[g] De-mining in Cambodia.
Source: Derived by the author from Department of Foreign Affairs, annual reports and data kindly supplied in August 1995 and May 1996.

Of course, famine itself is generally a complex emergency. It can result from a variety of causes, including drought, disease, war, population displacement and infrastructural destruction, among others. Thus, most of the headings in Table 15.8 are for some years almost interchangeable. By 1994, rehabilitation had become a major item of expenditure. However, this item is not included by Irish Aid under the heading of emergency humanitarian assistance, being part of the 'recovery' phase from famines and other disasters.

Appendix: Definitions

Emergency A sudden and usually unforeseen event that calls for immediate measures to minimise its adverse consequences.

Complex emergency A form of man-made emergency in which the cause of the emergency as well as the assistance to the afflicted are bound by intense levels of political involvement.
Disaster A serious disruption of the functioning of society, causing widespread human, material or environmental losses that exceed the ability of the affected population to cope using only its own resources. Disasters are often classified according to their cause (natural or man-made).
Disaster management The body of policy and administrative decisions and operational activities that pertain to the various stages of a disaster at all levels.
Disaster response A sum of decisions and actions taken during and after a disaster, including immediate relief, rehabilitation and reconstruction.
Mitigation Measures taken in advance of a disaster aimed at decreasing or eliminating its impact on society and the environment.
Preparedness Activities designed to minimise loss of life and damage, to organise the temporary removal of people and property from a threatened location, and to facilitate timely and effective rescue, relief and rehabilitation.
Prevention Encompasses activities designed to provide permanent protection from disasters. It includes engineering and other physical protective measures, as well as legislative measures controlling land use and urban planning.
Relief Assistance and/or intervention during or after a disaster to meet life preservation and basic subsistence need. It can be of emergency or protracted duration.
Source: DHA (1992).

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Part V
New Approaches to Practice

16 Rural Public Works and Food Entitlement Protection: Towards a Strategy for Preventing Hunger[1]

Piet Terhal and Indira Hirway

The concept of entitlement has become an important tool for analysing famines (Sen, 1981), but has also brought a new perspective to the discussion and analysis of poverty in general. It is mainly through the expansion of their entitlement set that poor households can escape from poverty, and from hunger. Productive employment is the most important source of entitlements. While for those who own some land or capital, such expansion can in principle take place through an increase in asset productivity, the poorest part of the labour force in all developing countries controls no or too few productive assets and has virtually only its labour power to rely upon. Barring a redistribution of ownership of assets, expansion of opportunities for paid employment is for these households the most direct escape route from poverty.

However, because of the way rural labour markets operate, the prevailing patterns of employment do not match the need of a growing rural labour force. First of all, owing to the cumulative impact of skewed economic development originating in differential spatial resource endowment and uneven investment patterns, some regions enjoy large production increases, while others stagnate. Second, particularly in backward areas, there is often a sharp agricultural cycle allowing for only one rainfed crop a year, which implies that most of the year there is a sizeable lack of employment in the agricultural sector. Outmigration of one family member, or of the whole family, has become one of the survival strategies for the households involved. A third set of factors dampens the growth of such work opportunities in more prosperous areas, among which factors the application of more capital intensive agricultural technologies has become

prominent. A related factor is the lack of overall purchasing power to clear the market for wage goods, which constrains agricultural growth in the prosperous areas, and which in its turn derives from the gap in development levels between regions. Dualistic growth appears to have an inbuilt tendency to exclude a large part of labour from a productive contribution. Moreover, the environmental degradation contributes to rural poverty by eroding those common resources which, particularly in backward areas, support the self-employment of the poor. Finally, demographic growth aggravates the situation in both quantitative and qualitative terms.

The above fairly general description seems to be applicable to many rural areas of the poorest parts of the world, where chronic hunger is endemic. The nature of the linkages between these poverty belts with the economies of the rest of the world gives no reasons to expect that market forces alone will provide adequate protection of food entitlements for large groups of people. The role of public authorities in such protection and therefore in preventing chronic hunger is crucial. However, given the state of underdevelopment and degradation of the natural resource base of these regions, large-scale protective public intervention (for example, cheap food distribution) can easily become an unbearable and unsustainable burden, unless simultaneously this productive base is improved upon and a self-sustained local growth potential is developed. So our search should be for a combination of entitlement protection and productive investment. While the cruelty and urgency of massive poverty and hunger and the failure of the market to provide adequate relief would demand public responsibility to be taken very seriously, and indeed would demand a frontal public attack on poverty, this strategy has to be balanced delicately between considerations of equity and of efficiency.

The purpose of this chapter is to investigate the potential of one particular instrument: namely, an employment guarantee through rural public works. Employment guarantee is defined as the provision – by the public authorities – of an entitlement to a certain type of paid employment under certain well-specified conditions. The guarantee must be such that people can escape from chronic hunger. On the other hand, the public expenditures involved in providing this food entitlement have to contribute simultaneously to local resource development. Rural public works provide for this double role. Rural public works are defined in such a way that they do not include those public works which, though situated in rural areas, are capital-intensive. The defining characteristic of rural public works in this

chapter is a combination of labour intensity and public investment orientation.

An authoritative study arguing for rural public works employment during famine periods is that of Drèze and Sen (1989).[2] While Drèze and Sen deal basically with relief employment, there is scope for a broader defined role of rural public works in protecting and promoting the entitlements of the poor, using rural public works as a regular development instrument. In the second section of this paper we will spell out that role. In the third section we shall summarise briefly the investigation into three cases of rural public works undertaken in the past, in order to draw some lessons from this about using the instrument. In the fourth section we shall focus our attention on employment guarantee through rural public works in India.[3] We conclude in the fifth section with some reflections on wider ramifications.

RURAL PUBLIC WORKS IN THEORY: MULTIPLE OBJECTIVES AND RELATED ISSUES

Rural public works programmes (RPWPs) can in theory contribute to the alleviation of poverty, to capital construction and to environmental protection. In this section we shall deal briefly with each of these triple goals, and after that discuss some other related issues.

RPWPs and Poverty Alleviation

The most common purpose of RPWPs is to provide work and wages to the poor in the event of droughts, floods and so on, or a situation of acute unemployment and poverty. This anti-poverty effect of RPWPs can be extended and strengthened if they are used systematically to provide public employment for those in need of it.

RPWPs function as an anti-poverty instrument in particular if (a) the programmes are labour-intensive (that is, at least 50–60 per cent of the total cost represents wages for unskilled labour); (b) they are not too small; and (c) wages paid are not too low and are paid regularly. If part of the wages is provided in kind, in the form of foodgrains, this helps to ensure a minimum level of nutrition.

The assets created by RPWPs can also contribute towards poverty alleviation if they are directed to the satisfaction of the basic needs of the poor. Examples of such assets are houses for the poor, approach

roads to their localities, basic amenities of sanitation and hygiene, school rooms, and dispensaries.

Moreover, RPWPs can be made to strengthen the productive asset base of the poor in several ways. They can provide individual assets, such as irrigation wells, and promote land development on small and marginal farms. Furthermore, they can result in co-operative use and ownership of newly-constructed assets; for example, by developing common property resources.

Finally, if sizeable enough, RPWPs can also benefit the poor by strengthening their bargaining position and by facilitating a more favourable functioning of rural labour markets. First of all, generation of large-scale public employment at a minimum wage rate has a tendency to raise the rural/agricultural wage level. Second, equal wage payment to all the workers tends to weaken the segmentation of the labour market – for example, between male and female labourers or between local and migrant workers. Third, the programmes may dampen seasonal wage fluctuations.

RPWPs and Capital Construction

The second important role of rural public works is to enhance the general level of development of the economy by creating capital assets. These assets can be classified broadly into three categories: directly productive assets (such as irrigation works); infrastructural assets (such as roads); and assets that contribute towards human capital formation (such as school rooms).

Economic development is often concentrated mainly in regions already endowed with adequate infrastructural facilities. RPWPs can hence be used to help spread development more equitably by constructing required infrastructural facilities in remote areas.

RPWPs and Environmental Protection

Finally, RPWPs can contribute towards appropriate environmental management. John Friedman (1981) has distinguished the following four areas of necessary environmental management for which rural public works can function as an important instrument: (i) basic ecological conditions, including the management of renewable resources, such as forests and ground-water supplies, the protection of watersheds from erosion, and the conservation of common pasture lands; (ii) agricultural technology, including the construction and mainten-

ance of small-scale irrigation systems and appropriate land preparation, such as terracing and land consolidation; (iii) energy supply, including the sustained-yield management of existing forests and the reforestation of denuded areas, but also the construction of biogas plants and the installation of solar-energy packages; (iv) human environment, a comprehensive term that includes environmental cleansing, pest control, flood control, and also potable-water supply and drainage systems. These four categories partly overlap with some of the asset categories mentioned earlier.

Conflicts Between Various Objectives of RPWPs

Multiple goals can make conflicting demands on a programme. Two types of such tension occur between the goals of poverty alleviation on the one hand and capital construction/environmental protection on the other.

First, the permanent benefits derived from rural public works tend to follow the existing asset distribution in the rural economy, particularly the land distribution. This implies an increase in inequality and a weakening of the relative position of the poor. There are in principle two ways to counteract this tendency:

(i) To try to bias the composition of the works programme to the creation of such assets that benefit the poor directly, as indicated above; there are clearly limits to this, depending on the inflexibility of property relations; and
(ii) To create an employment guarantee for the rural poor, which implies that those who are in need of employment can effectively demand it, and the public authorities are legally bound to provide work, subject to certain conditions and constraints. Thus any weakening of the relative asset position of the poor will be partly compensated by their entitlement to employment. Below we shall draw particular attention to such 'employment guarantees' in the context of India.

Second, the type of works required for providing maximum employment to the poor may not be the most suitable for promoting economic development of the region. More specifically, the permanent usefulness of the output of rural public works depends often on the construction technology and the quality of design and implementation. A trade-off emerges between maximising employment on the one

hand, and attaining high-quality output on the other. Not all types of rural public works assets of good quality can be constructed with (very) labour-intensive technology. To be constructed properly, many assets require a compromise in the choice of technology at the loss of direct employment potential per unit of investment.

RPWPs and Overall Employment Policy

Rural public works cannot entirely compensate for an anti-employment bias in overall development policies. According to the World Bank (1976), a review of development policies in countries in which sizeable rural public works were undertaken in the past reveals a wide variation in the incorporation of employment creation in different policy areas. In many countries there prevails a definite bias against employment-orientated policy. In such situations, rural public works can help only marginally. The main burden of employment creation lies with the mainstream economic sectors, and the best use that can be made of these works is to strengthen the employment-absorbing potential of these sectors.

Finance, Wages and Productivity

Given the multiplicity of goals of rural public works there is no easy way to determine the optimum size of the budget for such programmes, nor an adequate level of wage rate. The aim of capital construction, as well as that of poverty alleviation, is better served when wages are not very low. However, the mobilisation of finance for such programmes becomes more problematic the larger their size and the higher the wage rate. Special taxes and also ways of self-financing may provide elements for a solution. For example, labourers building their own houses may be motivated to work diligently and productively without being paid a full wage. Those who profit from the asset constructed should also contribute to the finances needed.

In the past, labour has often been mobilised for rural capital construction at too low a level of remuneration. When wages are low there is no interference with the local rural labour market (with its potential negative impact on other production), and certainly only those who are most in need of it will participate. But these arguments should be carefully and critically weighed against the direct and indirect impacts that higher wages have on poverty conditions (see above) as well as on productivity (World Bank, 1976).

Organisational Aspects

The organisational structure of RPWPs should achieve a careful balance between an essential minimum of central authority and a high degree of decentralisation in planning and implementation.

The government would also be well advised to build or to allow into the programme – while decentralising it – a strong component of independent control against misuse and appropriation by the local elite (Thomas, 1971). This independent control may take three (not mutually exclusive) forms: control by the local community; control by external non-governmental organisations; and control by organisations of labourers. Whatever model or mix of elements is adopted, broad participation of local people should always be ensured.

Some Sociopolitical Dimensions

The logic of rural public works has an evident political connotation: rural labourers who are excluded from economic participation by the operation of the rural labour market are allowed to participate productively through public action. What is the scope for such public action? At least three positions can be taken here. Some believe that the government's role should be limited to providing a little supplementary income to the poor, while others advocate a more substantial role, stressing the appropriateness of rural public works for providing a combined solution to two of the most pressing developmental problems: rural unemployment and lack of productive rural capital. One may go still further and support an employment guarantee for economic as well as political reasons.

Can rural works programmes emerge as a truly emancipatory measure for the poor? This depends largely on the content of the programme as well as on the attitude of the authorities towards the organisation of the poor. In the case of sustained rural public works programmes, those working on public works are likely to form some organisations – formal or informal – such as trade unions, labour cooperatives and so on. The importance of authentic and autonomous organisations of the poor cannot be overemphasised. Their formation will, on the one hand, depend on the initiatives, courage and perseverance of the beneficiaries themselves, and, on the other, on the range of measures that support their efforts. A politically committed government may support the poor in their struggle against repressive and exploitative situations (Breman, 1985). A committed government may

also attempt to extend the ownership of newly-created assets to the poor, or ensure a proper distribution of the returns on these assets.

RURAL PUBLIC WORKS IN PRACTICE: THREE CASE STUDIES

The original publication on which this chapter is based contains information on seven case studies. The diversity of conditions and settings surrounding these cases is very wide. They range from the case of rural works in a very poor semi-feudal economy (the former East Pakistan) to public employment schemes in a fairly developed capitalist economy (the Netherlands) and to the communist-ruled labour-mobilisation campaigns in China's rural countryside; they also include experiences with rural public works in four Indian states (Gujarat, Karnataka, West Bengal, Maharashtra). The case studies are based on secondary sources, apart from the Gujarat case, which reports on extensive primary research. For lack of space we shall review briefly only three case studies in a comparative perspective. For the complete detailed description and analysis we refer the reader to Hirway and Terhal (1994). The three specific cases below are thus presented as illustrations, both of the potential and the problems involved in these programmes.

East Pakistan

In the erstwhile Eastern Province of Pakistan (now known as Bangladesh) during the 1960s, a remarkable programme of rural public works was carried out. Under the guidance of the Rural Academy of Comilla the programme started as a pilot scheme in 1961–2 in Comilla Thana, where it was considered very successful. In 1962–3 it was expanded into a province-wide scheme. It was supported by food donations under Public Law 480 from the USA.

Essentially, the programme consisted of innumerable labour-intensive rural projects to improve water and soil conditions in rural areas, and transport and communication facilities (roads, bridges and so on). The design and execution was done in a decentralised way through the existing system of local self-government (the so-called system of Basic Democracies). The programme provided temporary employment to rural labourers, particularly during the off-season, helping them to escape the worst forms of poverty.

Thus the programme became very popular. In fact, the political aspect is a most striking element in the evolution of this Rural Works Programme. Various observers have made different assessments with respect to the political dynamics of the programme, after its pilot stage in 1962–3 (see for example, Thomas (1971) and Sobhan (1968)).[4]

As a general lesson, this case – and more particularly the pilot programme undertaken in Comilla Thana under the guidance of the Rural Academy of Comilla – shows clearly that a programme combining poverty alleviation with improvements in rural infrastructure can be successful if and when it is decentralised and operational control for design and implementation is given to those who have first-hand information on both local unemployment and infrastructural needs. However, when such a successful programme attracts a sizeable amount of external aid and channels this on a large scale into a decentralised administrative structure, the political and economic interests at stake become considerable and this may lead eventually to processes that undermine the success.

In order to substantiate the (original) success of the programme, some data are provided below on three major clusters of issues: first, the overall impact on unemployment and poverty; second, the permanent investment impact; and third, the organisational structure.

Unemployment and Poverty

Compared with estimated annual agricultural unemployment, the size of the public works employment generated under the East Pakistan Works Programme appears to be fairly modest, being most probably within the range of 3–10 per cent of total agricultural labour surplus, notwithstanding the substantial expenditure incurred. This points to the fact that the labour surplus in these densely populated areas is huge, and the concomitant poverty is intense and massive. However, as the supplementary employment was supposed to be provided during the three to four months when unemployment was highest, its significance for alleviating poverty during these very months could be of real importance. At a wage rate of two rupees (Rs) per day and with three full months of additional work, the average annual income of an agricultural labourer would rise theoretically from Rs200 to about Rs370. In practice, full employment over the slack period was exceptional, and effective wages paid were depressed because of interference of contractors and cheating officials. Nevertheless, both

Thomas and Sobhan agree on the direct anti-poverty impact of the programme.

Permanent Investment Impact

Rural road building and repair was undertaken with about 75 per cent of the programme funds over the years 1962–7. Thomas (1971) provides some evidence on the widely beneficial impact of this activity on rural transport and access to markets. Important reductions in the cost of commercial transportation of paddy, and substantial increases in the (more profitable) sales of agricultural products in secondary and primary markets as compared with sales at the farm, are reported by Thomas. Even more important for the rural economy were, however, drainage and flood embankments projects, each covering only 5 per cent of the 1962–7 allocations. These shares are rather low, given the very substantial contributions of such projects to the land productivity that Thomas quotes. In the original pilot programme in Comilla Thana in 1961–2 the emphasis was indeed on water control. Only four out of thirty-one projects were at that time on road construction. However, the rapid expansion of the Programme in East Pakistan created a bias towards 'easy' projects such as road building. The remaining 15 per cent of the 1962–7 allocation went to community buildings. The most important of these were the Thana Training and Development Centres (thanas are administrative units covering about 150 000 people on average).

Organisational Aspects

The philosophy behind the original Comilla pilot project was strongly orientated towards rural people's self-reliance. The director of the Comilla Academy of Rural Development, Akhter Hameed Khan, believed in people's knowledge of their (local) needs and their capacity to carry out a programme for development of their own area, if adequately supported by the government. The system of Basic Democracies allowed for putting this philosophy into practice. At the lowest administrative level (unions consisting of directly elected people from an electorate comprising on average about 1200 people) projects were formulated that were together consolidated into a Thana Development Plan. The Chief Executive Officer of the thana would serve as the administrator of the programme, while implementation was left to local-level project committees. The model drawn up by the Comilla Academy assumed uncompromising discipline in checking

accounts, and tough handling of cases of dishonesty. There was a balance between a high degree of decentralisation in planning and execution of projects with higher-level control on key issues, such as finance. Wide publicity on what resources had been made available to the Union Councils, and for what purpose, would enable the local population to participate in decision-making. As the employment generated through the programme was an important help for many, the programme became popular and widely discussed.

The amount of resources that became available at the local level when the programme was expanded suddenly province-wide, together with attempts to use the programme as a direct political instrument have after some time most probably spoilt its developmental potential. Nevertheless, both the pilot project in Comilla as well as – to some extent – the expanded project in the whole area, have shown this potential to be huge.

Maharashtra (India)

The Maharashtra Employment Guarantee Scheme (MEGS) is the only Indian employment programme that contains a guarantee component. Any adult person in rural areas of the Indian state of Maharashtra can demand public works employment, which then has to be provided within two weeks and within the district – preferably in the neighbourhood of his residence. The Government of Maharashtra passed a legal act relating to this in the state assembly and also put in place the administrative and technical machinery needed, including detailed guidelines for implementing this policy. It has maintained the programme since the early 1970s. A very important aspect of the Maharashtra Employment Guarantee Scheme is its funding. Half of the required financial resources is raised through a set of special taxes on the modern part of the state economy, with the remaining half being supplemented from the state budget.

In overall size, MEGS is a major undertaking: the total amount spent up to the year 1988–89 was Rs21 billion which generated more than two billion person-days of employment. Hundreds of thousands of projects have been implemented under the programme, aiming at soil conservation, land development, road construction, afforestation and water management. The permanent benefits derived from the projects were, however, disappointingly low, because of inadequate planning and lack of maintenance. The need to provide employment at short notice appeared to militate against careful project preparation.

In the late 1980s the Government of Maharashtra – induced partly by wage increases,[5] and partly by the disappointing productivity outcome – started to think afresh on MEGS. A new sub-programme was introduced, called 'Village Development Through Labour'. This was based on substantial decentralisation. It also put a strong emphasis on maximising permanent benefits: incompleted works should be completed first; and linkages and integration with other projects were vital. Furthermore, works could also be undertaken on private land.

Overall, the Government of Maharashtra reduced the expenditure on the programme in the late 1980s, apparently by 'rationing' the employment guarantee, to which end bureaucratic measures were introduced – such as the rule that new projects cannot be started while old ones are uncompleted (Ravallion, 1993). The measures were such as to reduce the annual officially recorded employment under MEGS from the peak level of 190 million person-days in 1985–6 to 90 million in 1990–1.

Unemployment and Poverty

The anti-poverty effect of MEGS is beyond doubt. The people working on the programme belong to the poor section of the rural population, and the incomes derived from it often represent an important share of their off-farm labour income. Through MEGS the level of rural wages has been protected from sliding downwards. Labour organisations have also campaigned successfully around the programme in order to enlarge its anti-poverty impact.

More concretely, while the share of MEGS employment created in total rural casual employment seems to be modest (around 8 per cent in total labour days) its targeting at a difficult period of the year was such that many participating households derived a substantial part of their off-season labour income from it. The labourers on the works generally belonged to scheduled castes and tribes, and other economically 'backward' communities. Agricultural landless labourers were, however, clearly under-represented. This can be caused by the fact that, in practice, the guarantee does not offer sufficient protection (see below). On the other hand, many women prefer public employment near to the village of residence. The percentage of female participation in MEGS is clearly above the female participation rate in other non-farm employment.

On the basis of extensive interviews (MEGS is one of the most researched rural programmes in India) one may conclude that there

are two distinct groups of households participating in the programme. One group derived quasi-permanent employment from it. MEGS income was typically 60–80 per cent of total income for this group. The other group derived around an average of 30 per cent of total income out of MEGS. Time spent on MEGS projects was in this case normally below two to two-and-a-half months.

However, the protection against unemployment that the programme is supposed to offer is far from perfect. The employment guarantee is formally indisputable, but in practice not (always) operational. Complaints from the labourers have been noted on the following points:

- Wages were perceived to be very low, and not adequate for participating families to cross the poverty line, which would require a level twice as high, according to the respondents. This assessment has been confirmed by some calculations done by Acharya (1990, pp. 34, 35).
- Frequent closure of projects, and irregularity and delays in work availability seriously disrupted the employment support. People, particularly women, definitely preferred longer periods of continuous employment.
- The methods for measuring the work performance were often described as complex, unfair to weaker and older people, and there were frequent complaints against systematic underestimation of work done.
- Women often felt discriminated against, including in the case of work allocation.
- Many people, particularly women, had to cope with poor health conditions, which prevented them from performing enough work to earn an adequate income. Persistent and chronic health problems severely hampered the earning capacity of the poor, even when the work itself was not difficult or heavy.

Permanent Investment Impact

The type and sheer number of projects implemented under the Maharashtra Employment Guarantee Scheme were such that a permanent impact on the conditions of water, soil and vegetation in rural Maharashtra was to be expected. The choice of projects (soil and water conservation, land development, afforestation, irrigation and so on) was clearly sensitive to the ecological vulnerability of the state, which

is for a large part semi-arid. MEGS has certainly had some positive impact on this. It was, for example, an important component of the so called Comprehensive Watershed Development Programme, launched in 1983, of which 45 per cent of the costs were covered by MEGS paid labour. This vital programme, primarily initiated in dry and rainfed areas, has been shown to be successful in raising additional yields and water availability in the wells. MEGS overall could certainly have done better in terms of long-term productivity and ecological impact. Improper planning, inadequate project selection and design, lack of technical and organisational supervision, poor maintenance and end use, and, finally, long delays in implementation, have affected the productive quality of capital constructed.

Organisational Aspects

The MEGS in Maharashtra is – not withstanding the 'right' to employment it bestows on rural labourers – not a grass-roots programme. Its organisational structure is biased towards a top-down approach. The government is supposed to provide employment as soon as labourers are in need of it, and has to do so without discrimination or restriction. However, in practice, the authorities at various levels exercise a great deal of discrimination in the allocation of resources. One of the causes of this is the matrix organisation of the project management, or – more precisely – the way in which this matrix organisation operates in practice. The guarantee of employment is the responsibility of the (co-ordinating) revenue department, and the usefulness and quality of the assets constructed are the concern of the technical departments overseeing the works. Co-operation between these two wings of the public bureaucracy is supposed to be mediated through Employment Guarantee Schemes Committees at state, district and block levels. In practice, antagonisms develop frequently, and inconsistencies in behaviour between both implementing agencies occur. This has to do – among others factors – with the inherent tension between the objective of guaranteed security of employment on the one hand, and the objective of construction of high-quality permanent assets on the other.

Moreover, the two wings of the state administration involved in planning and executing MEGS constitute a certain bureaucracy that is not responsive enough to participatory initiatives from below, and not flexible enough to respond to needs.

Nevertheless, MEGS has been a focal point for rural organisations to rally and actively promote the cause of the labourers, in particular, successfully supporting demands for higher wages.

So the conclusion may be that the Maharashtra case shows that the concept of employment guarantee would imply a great deal of organisational flexibility. The combination of employment guarantee with useful investment demands more decentralisation and participation than was realised in Maharashtra. The philosophy of the programme seems to be basically sound, but the political determination to make the programme live up to its excellent objectives seems to have suffered over the years. Perhaps some of the constraints set by the political economy of Maharashtra can explain a certain loss of vitality.

Gujarat (India)

A (primary) case study of two nationwide rural employment programmes in India – the National Rural Employment Programme (NREP) and the Rural Landless Employment Guarantee Programme (RLEGP) – was undertaken in four districts of Gujarat. These districts represent different economic and ecological situations: Banaskantha, Kachchha, Bharuch and Panchmahals.

In each district, two talukas (sub-districts) were selected, and within these a number of NREP and RLEGP projects were studied through detailed field interviews and data collection.[6] The impacts of the schemes on the labourers and their households, and the contribution to permanent assets, were investigated. Moreover, attention was paid to aspects of planning, project design and organisation. The findings of this investigation are summarised below.

Unemployment and Poverty

An important set of observations relates to the disproportion between prevailing rural unemployment on the one hand, and the small contribution of NREP and RLEGP to alleviating this unemployment. While this was already known from other evaluation studies on NREP and RLEGP, the field data confirmed the existence of a structural and serious lack of employment opportunities in most of the eighty-eight villages that the NREP and RLEGP programmes basically could not ameliorate, because of their small size. This unemployment was particularly apparent in villages with rain-fed

agriculture. Agriculture was recorded as providing more than six months of employment in only fifteen of the eighty-eight villages under study. Extreme examples were found in Jambusar Taluka, where twelve out of sixteen villages had only three months' work in agriculture, and consequently the estimated average unemployment rate was between 30 and 40 per cent; in Valia Taluka, with ten out of thirteen villages having only three months' work in agriculture (unemployment 40 per cent); and Radhanpur Taluka, with eight out of nine villages having only three months' of work in agriculture (unemployment 40–50 per cent). For the participants in NREP and RLEGP, the average annual duration of employment was only about 30 days. No wonder that the overwhelming majority of the labourers – when asked about the programme – wanted additional employment under the programmes. About 80 per cent of the workers preferred work under NREP and RLEGP to any other work in rural areas. This points to the perceived benefits of the programmes, which were spelt out by the workers in detail: about half of the respondents mentioned the relatively high wage rate, including the payment in foodgrains, as the first reason for their preference for these works. A second major reason – the certainty of paid work locally – was mentioned by a very substantial group. Nearly 40 per cent of the respondents declared that migration was the (only) alternative in case of lack of employment. Given the local nature of NREP and RLEGP works and the labourers' apparent reluctance to migrate, a majority of participants was of the opinion that the size and coverage of NREP and RLEGP should be expanded.

Half of those who participated as workers were from landless labour households and, together with the category of marginal farmers' households, they made up 66 per cent of all beneficiaries.

Nearly 70 per cent of the workers were illiterate, and more than 95 per cent belonged to castes and tribes that can be considered as being underprivileged and economically backward.

The wage rate on NREP and RLEGP works – besides the duration of employment, the other major factor determining the direct anti-poverty impact – showed a large variation between the various talukas. The results of an attempt to look a little below the official statistical data (in which all wage rates are pinned down at the level of the official minimum wage rate of Rs11.00 per day) are as follows:

(i) In more than 60 per cent of cases, the minimum wage was not paid, and in 9 per cent the daily wage was even less than Rs7.00.

In 30 per cent of the cases, wages were more than Rs11.00 and sometimes higher than Rs15.00.

(ii) The prevailing level of agricultural wages within the talukas appears to be the most important factor for explaining wage variability on NREP and RLEGP. NREP and RLEGP daily wage rates differ in most cases by only a small margin from the average daily wage rate in local agriculture. Interestingly enough, in the case of the three lowest agricultural wage rates (occurring, as could be expected, in the very poor rainfed talukas of Jambusar, Valia and Radhanpur mentioned above) the NREP and RLEGP wage rates were slightly higher, while in all other 'better off' talukas the NREP and RLEGP wage rates were (slightly) lower than the market rate for agricultural labour.

While a large majority of respondents believed that the NREP and RLEGP works did not have any impact on the prevailing wage levels in their villages, about 20 per cent of the respondents felt that there was a positive impact.[7]

(iii) Other factors that influenced the wage rate were: the nature of the implementing agency; the skill level of the work; the involvement of contractors; and gender.

The overall anti-poverty impact of the works was modest, given the small size, short duration and (sometimes) low wages.

Permanent Investment Impact

Three factors severely restricted the permanent investment impact of the NREP and RLEGP programmes in the villages under research:

(i) Again, the small size of the programmes implied that only a limited number of individual projects were undertaken. In the total of eighty-eight villages, 142 NREP and 50 RLEGP assets were constructed – that is, 2.2 NREP/RLEGP works per village during eight years of NREP and five years of RLEGP.

(ii) The choice of these 192 projects was biased towards the construction of buildings (school rooms, panchayat offices, school kitchens, housing and so on). While some types of building – for example, a house or a school – can have an important social function, the economic investment impact and permanent contribution to employment is less clear, compared with irrigation

and afforestation. Only eighty-one assets related to directly productive activities, such as irrigation and afforestation, while eighty-six assets consisted of buildings. The rest related to infrastructural facilities, such as approach roads.

(iii) Further, about a quarter of the assets constructed under the programme were non-durable, while about 40 per cent were of medium to poor quality. Moreover, about 30 per cent of the assets could not be maintained properly because of lack of funds. While a number of assets were non-usable from the beginning, many more were likely to become useless over time, because of poor quality, non-durability and lack of maintenance.

Organisational Aspects

NREP and RLEGP are programmes set up all over India by central government. The District Rural Development Agency (DRDA) – responsible for implementing poverty alleviation programmes within a district – has been entrusted also with the responsibility of planning and execution of the NREP and RLEGP according to official guidelines drawn up by the Department of Rural Development of the Government of India.

Both the case study in Gujarat and other evaluative studies on NREP and RLEGP have shown various weaknesses in the organisation of the works. The responsiveness of the programmes to local needs, both in terms of employment and asset creation, is certainly not optimal. The DRDA is poorly equipped and has too little authority to play the key role of planning and implementing the strategic use of surplus labour for (local) capital construction. It has to rely heavily on the technical departments of the government, on the Panchayat Raj institutions, and on other bodies, including voluntary agencies and contractors, in order to fulfil the bureaucratic 'targets' set. This resulted in poor overall planning and implementation, wrong priorities and inadequate procedures creeping in, and considerable leakage of funds. In the case of involvement of voluntary agencies, somewhat better results were obtained.

In spite of the above criticism, positive results could also be noted. First of all, over time there was a small, gradual change in the pattern of the allocation of resources in favour of afforestation and irrigation, and away from the construction of buildings. Second, in pockets where the programmes were implemented intensively, (a) the local

wage rate for unskilled work rose; (b) the increased wage income of the workers reduced their debts to the local moneylender or to the big farmers of the village; (c) a few of the beneficiaries had used their savings to buy productive assets to create long-term employment; and (d) out-migration had declined to some extent.

Finally, experiences of the voluntary agencies engaged in these programmes provide some lessons for the government on flexibility in approach, decentralised planning, and participation of local people.

AN EMPLOYMENT GUARANTEE THROUGH RURAL PUBLIC WORKS IN INDIA

Lessons from the Case Studies

There are some general lessons to be drawn from the seven case studies about rural public-works programmes:

(i) The single most important factor for success of a public-works programme is the political commitment of the national government. Such a commitment will ensure the necessary administrative, organisational and financial inputs for the programme. It is important to note that the prevailing political ideology or the specific political system *per se* are not decisive factors in this regard, though they are still significant.

(ii) The planning and organisation of a public works programme should be adapted to the political and social reality of the country concerned. Any programme that is based on false assumptions about the sociopolitical characteristics of society is bound to fail. For example, if the poor are economically and politically weak, there is no point in expecting that they would undertake a 'social audit' of a public works programme unless they succeed in acquiring some organisational strength.

(iii) The fact that RPWPs are planned on the basis of short-run and *ad hoc* considerations (such as to provide relief in emergencies, or to attain short-term political goals) obscures their potential as a strategic instrument for sustainable rural development. Their potential to serve multiple objectives simultaneously can give them a central role in an overall rural employment strategy which should maximise the integration of rural public works with other ongoing development projects and processes. To

achieve that aim, a far bolder application of rural public works together with a long-term perspective are needed. This also implies that the macro-growth process of the national economy should be in tune with the underlying strategy of RPWPs.

(iv) Innovative institutional flexibility and the capacity to learn from past experiences are decisive for success. A combination of – on the one hand – a strong central commitment and the key control of administrative and organisational procedures and – on the other – a far-reaching decentralisation of planning and implementation are needed. Intended beneficiaries of the assets created should be in a position to play an important role in deciding about the projects. Local capacity and local systems should be created to undertake the programmes at the micro level, with the involvement of people's organisations and NGOs. Planning these works should be part of a multi-level planning effort.

(v) In several of the case studies, the weak socioeconomic position of labourers on rural public works (landless labourers and small farmers) is reflected in (a) low and poorly-administered wages; (b) social stigmatisation and repression; (c) a low share in the permanent benefits of the works; and (d) bad health conditions which – in the case of a piece-rate wage system – result in very low remuneration. In view of these structural biases against the workers, an entitlement-based model has some definite advantages (see below). Organisations of labourers should be actively encouraged. Elementary health care and some skill development should preferably be part of the work experience.

(vi) These programmes are frequently misused by politicians, intermediaries (contractors) and others, and hence must be managed carefully, monitored continuously and evaluated systematically. They should be watched by vigilant bodies set up for the purpose at various levels. In a decentralised democratic situation, local publicity and effective access to all relevant information about the intentions and operation of the programme will contribute to public awareness, and mobilise people to exercise democratic control at the local level. Formal involvement of workers' organisations will also be useful.

(vii) The programmes should be viewed as a way of bringing about a socially acceptable transition from a poorly-functioning economy characterised by a labour surplus to an economy with a minimum level of unemployment and experiencing sustainable development.

Employment Guarantee and Entitlements

Looking at the case studies we can see that an employment guarantee is not the only way to ensure a minimum level of entitlements or social security in the context of rural public works. At least four models can be distinguished:

(i) *Communitarian model* Workers are entitled to have their minimum needs met by belonging to a collective. They are expected to provide labour in their free time on works to improve infrastructure, natural resources and productivity levels of society. The Chinese experience most closely approximates this model.

(ii) *Right-to-work model* Workers are legally entitled to paid work. They can demand public employment on rural works. Depending on the public authorities, these projects can be used for productive or socially useful purposes. Maharashtra exemplifies this model.

(iii) *Right-to-income model* Workers are legally entitled to public income (support), if and when unemployed. If they receive this support they can be forced to contribute their labour to public projects. The Dutch case illustrates this model.

(iv) *Wage employment model* Workers receive wages (in cash or in kind) on public projects on which they are employed, without any legally binding entitlement either to work or to income (apart, possibly, from minimum wage regulations). The East Pakistan case and other cases illustrate this model.

Rural Public Works: India and China Compared

Reconsidering the potential role of rural public works for rural development, one is led to compare again the way in which India and China have approached the matter. Both countries share a similar problem: of having to transform a densely populated countryside under considerable ecological stress into a viable and productive base for a very large and still expanding population. But they have each tackled their problem differently. The main difference is the way in which human resources have been used to bring about this transformation. The full use of these resources has been a guiding principle of Chinese rural development, in contrast with India's response. Moreover, the scarcity of land resources, which was faced by both countries, was approached differently. Under early

Communist rule, the Chinese solution for making the best use of scarce land resources was, first and foremost, radical land reform, and second, the optimum use of other productive resources. In particular, abundant human resources were employed through a particular type of societal organisation, in order to invest in the improvement of land – mainly through massive numbers of small and medium-sized irrigation schemes, and soil conservation and improvement programmes. The Indian strategy has been weak in terms of land reform, mainly consisting of an attack on the technological barriers to land productivity by the Green Revolution. This strategy was selective in social and regional respects, concentrating on well-endowed farmlands. Irrigation investments were often concentrated on major dams.

In terms of achieving overall rural welfare, China has done better than India. It is true that for both countries the level of GNP per capita in 1989 was officially recorded as being similar, namely around US$350. But distribution was much more equal in China than in India. In China, there is less undernourishment than in India, and access to public services (health and education) is far better, which resulted in a very significant difference in life expectancy at birth in 1989 (India 59 years, China 70 years) and literacy rate (India 43 per cent, China 69 per cent).

Although the commune system prevailed only during a particular period of Chinese history from the late 1950s to the late 1970s, it was the organisational instrument for bringing about a very great number of rural infrastructural investment projects, which seem to have helped lay the foundation for a successful Chinese agricultural development. The commune was supposed to guarantee a minimum level of economic security to every member, but in return demanded labour from every person who could work. Apart from regular work in agriculture, allied activities and small industries, people – in their spare time – were supposed to work in labour-intensive soil-improvement projects, water-management projects, afforestation and so on. The system of work points by which the total income of the commune was distributed among its members according to the work time contributed implied a collective self-financing of this investment through 'surplus' labour.

The above does not imply that this rural investment using collectively organised labour alone was responsible for China's better economic performance. However, it did form an integral part of a strategy that made the utilisation of human resources *and* collective self-reliance the cornerstones of development. There are in China huge

human costs involved in terms of repression – in particular a lack of political freedom and democracy. But the fact that India has been a relatively open and free democratic society should not blind us to the very serious neglect that has crept into its rural policies, as an increasing number of people have been made – or so it seems – largely redundant as far as the dynamic mainstream economy is concerned, while a valuable resources remain idle or are deteriorating. China has gone too far into repressing people politically; India has gone too far in writing off people economically. The recognition that, in both cases, human rights are violated, leads to a renewed search for institutional innovations in both countries. In this search the countries can learn from each other's experiences.

In 1959, the Indian delegation that was sent to China to study irrigation and water conservation in the period when the commune system was established came up with recommendations for Indian rural transformation that are still worth consideration (Ministry of Food and Agriculture, 1959):

> Afforestation work should be undertaken on a mass scale on waste and hilly lands which are at present devoid of any vegetation. This work should be made the responsibility of Gram Panchayats and Village Cooperatives. In order to enable proper use of available manpower a survey should be carried out as to the number of able-bodied persons and the period during which they would be available for work. Use of this manpower on the nearby works should receive adequate attention particularly in regard to their housing on or near the site of work and their transport to and fro. In case some of these persons are skilled workers, it should be seen that their services are usefully utilised. In short, all available manpower in the country should be harnessed and utilised towards community construction works during the periods when the agricultural operations are at a stand-still or are negligible. This would also determine the number of works that could be simultaneously undertaken with the available manpower.

Right to Work and Employment Guarantee

The essential sociopolitical difference between India and China that is relevant for the long-term impact of a massive rural works policy in both countries resides in the patterns of land ownership. The political history of land reforms in India precludes the full adoption there of

the Chinese model. This does not rule out that in parts of India important changes in the control over land may facilitate innovative rural works programmes along communal or co-operative lines. But, overall, the resilience of the skewed land distribution in India is such that any massive programme of rural public works would easily lead to disproportionate gains for the rural elite. As we have argued earlier, in such a situation the provision of an employment guarantee ('right to work') may help to balance the political economy.

The idea of the right to work has been extensively discussed in India (Planning Commission, 1990a, 1990b; Baxi, 1990; Dandekar, 1991). Officially, one of the objectives of the Rural Landless Employment Guarantee Programme was to guarantee at least a hundred days of work to one member of each household, but in that context it has never been more than a paper concept.

Nevertheless, several groups in India have been demanding the right to work as a fundamental right, on the grounds that it is given to the people of India by the Constitution. There are indeed several Articles in the Indian Constitution, notably Articles 39, 41 and 43, which can be read as such (Baxi, 1990). However, since all these articles are in the Chapter on Directive Principles for state policy of the Constitution, these are not legally binding. The state can refuse the inclusion of these rights in the fundamental rights on the grounds that it does not have the economic capacity to enforce them (Article 41).[8]

On the other hand, the un/underemployed masses in India do need some kind of protection as they cannot be left to themselves in the present situation. This should incorporate a legal guarantee component entitling the poor to a minimum level of protection. To achieve this protection, a scheme under an employment guarantee act, broadly based on the Maharashtra model, would be highly desirable. Without implying constitutional amendments, such an act would provide necessary political and legal support for the most vulnerable citizens in India.

Such an employment guarantee scheme would have several advantages. First, it would ensure a minimum level of employment/income to the poor, not as charity but as a right. That is, the poor would be able to demand work (of an unskilled nature) instead of waiting for the administration to start projects. This political recognition of the need of the poor ensures them a modicum of human dignity and has important consequences for the strengthening of their position in general. Second, when properly designed and implemented, these schemes can generate important long-term economic benefits as they may imply

a considerable protection and improvement of the productivity levels of natural resources in rural areas (land, water, vegetation). Apart from promoting socioeconomic infrastructural development, rural public works can also spread economic development in relatively backward regions. And third, these programmes provide an opportunity for the poor who join these works to form organisations of their own. Such promotion of the organisation of the rural poor may well be the most decisive long-term contribution to rural development that an employment guarantee can make (see also the contributions of Egger (1992), Miller (1992) and Garnier and Majeres (1992)).

Feasibility

An important observation is that none of the Indian cases can be rated as being very 'successful', although the Maharashtra EGS and the West Bengal case show some positive results. How, then, to consider the feasibility of an employment guarantee programme (or a set of employment guarantee programmes) in India?

One major factor responsible for poor success in the Indian programmes is lack of political commitment. Another important conclusion to be drawn from the case studies concerns organisational aspects. They show that the organisational structure, the extent of decentralisation, the planning expertise, the flexibility of operation and so on in a public works programme have an important role in determining the level of success of the programme. In the Indian cases, these capabilities were observed to be very poor (see Hirway, 1991a; 1991b). Radical reforms in the public administration in India are therefore needed if an all-India employment guarantee is to be implemented successfully.[9] The present mood of change prevailing in India may provide conditions for such reforms.

The crucial point is that both the political commitment to provide minimum social security to the poor and the will to reform the public administration in the direction indicated may be considered to be indispensable conditions for India to survive as a democracy and to develop economically. If this fundamental assessment is accepted, the question of the feasibility of an employment guarantee provided by rural public works becomes more one of political will and less one of technical capability.

It is this political nature of the changes needed that forms an argument in favour of the introduction of the guarantee element that may encourage pressures from below for positive change.

Finally, there is the question of finance. Again, as the case of Maharashtra has shown, political commitment at the state level is essential for generating within the state itself the funds to support the employment guarantee. Given financial pressures in India in the 1990s, this will not be easy. A few suggestions can be given about how to tackle this problem. First, a gradual and differentiated approach is necessary, depending on the situation of public finance in various states. Some states may need temporary, or even permanent, support from the union, or alternatively foreign support for this. And the employment guarantee may be limited to a certain number of days guaranteed per household (for example, a hundred, as in the case of RLEGP).[10] Moreover, part of the funding could be raised gradually by taxing those who profit from the assets constructed under the programme. This mode of financing would have one advantage in comparison with a general increase of taxation. While the latter would have an employment-reducing impact on the rest of the economy, taxing the additional income of the beneficiaries of the created assets would, in this respect, leave the rest of the economy unaffected. Finally, a considerable waste of resources could be eliminated when the great variety of rural employment schemes in India were pooled together and consolidated into one employment guarantee programme, with various sub-programmes, including self-employment schemes.

AN EMPLOYMENT GUARANTEE THROUGH RURAL PUBLIC WORKS AS PART OF AN INTERNATIONAL SYSTEM OF SOCIAL SECURITY

At the end of this chapter we would like to argue the case of an internationally supported employment guarantee on rural public works as an essential element for providing social security in developing countries in general. We present the case in three steps.

Social Security and Structural Adjustment

First of all, since the early 1980s the international development agenda has become dominated by the idea of structural adjustment. A majority of developing countries faced a crisis in the balance of payments and had to take painful measures in order to restore macroeconomic balances. After an initial period of serious neglect of the

social dimensions of such changes, the international financial institutions and donor countries have become aware of the large share of the costs of adjustment which the poor had to bear in many cases. It has now become accepted practice to pay attention to these costs and to attempt to reduce them by special temporary social programmes accompanying the macroeconomic and sectoral adjustment programmes.

However, in many cases the length of the adjustment period – that is, the period during which the upswing of economic growth which adjustment is supposed to bring about has not yet taken place, and stagnation and even retrogression still prevail, has been seriously underestimated. The social support needed, therefore, is of an often much longer duration than has been anticipated. Moreover, given the increased 'dynamism' in the international economy that is partly the result of a cumulative and autonomous process of growing interdependencies through new facilities of transport, communication, electronic information technologies and capital mobility, and partly the result of a newly emerging policy environment, it is to be expected that structural adjustment, rather than being a transitional phenomenon, will become a permanent challenge for any economy. This would imply that social programmes meant to protect the poor against the costs of a continuous process of readjustment and international adaptation should have an equally permanent character and durability.

For the developed countries, the question boils down to how to maintain effective social security systems in the face of pressures of international competition. In the developing countries the task would be to build up affordable social security systems because – in the absence of such systems – the poor are forced to bear the costs of the continuous process of international adjustment.

Rural Public Works: An Indispensable Element of Social Security in Developing Countries

As described in this chapter, the social, regional and sectoral incidence of rural poverty in many developing countries is such that an employment guarantee on public works would indeed have the potential to help break vicious circles of poverty, hunger, environmental degradation, unemployment and economic backwardness. At the structural level it would be a necessary complement to balance the one-sided regional, sectoral and social impacts that macroeconomic adjustment normally has on any developing economy, namely to strengthen and

favour the somewhat better-off sectors, regions and social groups. Without the combination of social security and public investment which entitlement-orientated rural works programmes would provide, the development of the human, natural and capital resources of backward regions will continue to lag (far) behind the rest of the economy. The dualistic nature of the economy will become sharper, with potentially disastrous consequences such as a vicious circle of population growth, environmental destruction, poverty and social conflicts. It should be clear that entitlement-orientated rural public works are only one public instrument for an adequate provision of gainful employment, which is by far the most important contribution to the reduction of poverty and hunger for those who are able to work. A general labour-intensive profile in development policy includes a vast range of other measures, as we saw earlier. However, an employment guarantee through rural public works creates a powerful bias and commitment to labour-intensive rural development as well as opportunities to invest in such development.

International Support

Many approaches could be formulated to cope with the problem of insufficient taxing capability which poor countries (for the time being) face.

Above, we have argued that the cumulative process of growing international economic interdependencies forces all countries to continuous adjustments and makes the poor of all countries more vulnerable. While the financial resources needed for maintaining social security in rich countries may be much more easily mobilised than the resources for building up social security in poor countries, the supranational nature of the integration process which affects both groups of countries also justifies a supranational perspective on the question of finance. As the extreme international mobility and volatility of financial capital is undermining the capacity of all countries to manage the economy and to maintain and/or build up an adequate system of social protection, an instrument which slows down this volatility while generating a potentially (very) large amount of financial resources would be particularly fit for the purpose of social security.

The so called Tobin tax (see, for example, Tobin (1994) and Felix (1995)), an international tax on foreign exchange transactions, has been proposed, basically for two reasons: first, to 'throw some sand in the wheels of international finance' and so to stabilise the monetary

system by providing a disincentive to speculative short-term round tripping on a foreign money market; and second, to raise resources for important international public tasks which run the risk of inadequate financing. A World Social Security Fund may be a prime target for this as argued, for example, in the Human Development Report 1994. Along the lines of this chapter, the provision of a public rural employment guarantee in poor countries could be supported through this World Social Security Fund.

Three other preferable forms of social security that could be supported out of the fund are a guaranteed income support to those who, because of age, sickness or handicap, are not able to work (including, for example, a world-wide old age pension), subsidised credit for self-employment (including training), and finally a more general support of public expenditure for health and education, especially in backward areas and for underprivileged groups.

The exact shape of each country's social security policy should be determined within its own polity. The international allocation of the fund should follow objective criteria in which the economic strength of a country (autonomous capacity for social security policy), the need for social protection, and the shape of national policies are evaluated. While by far the major proportion would flow to the majority of the poor living in the South, there is no reason for excluding financial support to welfare states in the North who want to maintain and strengthen their own social security systems.

Notes

1. This chapter is based on a paper presented at the Annual Conference of the Development Studies Association around the theme: 'A World without Famine? New Approaches to Aid and Development', Dublin, 7–9 September 1995. The full result of the Research underlying this contribution are published in Hirway and Terhal (1994).
2. Drèze and Sen pay very little attention to the investment aspect of rural public works. This is partly understandable, as the authors concentrate on the one hand on the protection of entitlements through public employment in case of a famine. However, as they also deal with chronic undernutrition and poverty, their lack of attention for the development impact of rural public works constitutes a gap in this otherwise impressive study.
3. The second, third and fourth sections are mainly based upon the results of a research project under the Indo-Dutch Programme of Alternatives

in Development. The full report has been published in Hirway and Terhal (1994).

4. The essential difference between Thomas's and Sobhan's views is that the former ascribes the deterioration of the programme to national political manipulation corrupting a basically sound rural programme, while the latter stresses the corrupt nature of local political processes from the very beginning.
5. The average nominal daily wage increased from Rs 9.6 in 1985–6 to Rs 15.7 in 1990–1.
6. The Gujarat investigation is the only primary case study undertaken out of the seven cases studied. It involved samples of eighty-eight NREP and RLEGP works, and 514 interviewed beneficiaries.
7. As the beliefs of respondents regarding the types of question normally refer to nominal wage (which also may have changed, for various other reasons – apart from the introduction of the scheme), – these results are hard to interpret.
8. Another argument is that India has signed the UN Universal Declaration of Human Rights (1948) and the International Convention on Economic Social and Cultural Rights of ILO (1966), both of which incorporate the right to work and the free choice of employment. Therefore, the national government would have to provide this right on 'moral grounds' at least. However, it is a fact that very few countries (who have signed the above declarations) have given an effective right to work to their people. Many developed economies that have signed these declarations have not given a constitutional right to work even when they can afford it.
9. The major issues in such reforms are (a) decentralisation; (b) professionalisation; and (c) debureaucratisation.
10. Such limitation may become especially necessary when the official minimum-wage rules apply to the scheme. This is a rather controversial issue. In case of a budget constraint rationing of the guarantee over households or labourers seems to be preferable to a reduction of the wage level by exempting the guaranteed work from the minimum wage act. Apart from legal problems, such an exemption would mean implementing employment protection while simultaneously taking away an already existing form of protection (minimum-wage regulation). This does not appear to be an appropriate way to strengthen the political position of the poor.

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17 Potential for Improving the Efficiency and Cost-Effectiveness of Food Aid Grain Delivery

David Walker

Supplies of food aid grain continue to make up a significant proportion of the grain entering many developing countries. During the four years 1991–4, developing countries are estimated to have imported an average of 131 million tonnes of grain per annum of which food aid shipments are estimated to have averaged almost 13 million tonnes per annum (FAO, 1995a). A wide range of donors, implementing agencies and NGOs are involved in the food aid emergency relief and development programmes. All these organisations have an implicit duty to deliver to the beneficiaries the most suitable type of grain in the best condition using the most cost-effective procedures.

Food aid is vitally important to beneficiaries in the recipient countries. To achieve maximum impact from limited financial resources, it is important that it is procured, transported and distributed using efficient and cost-effective procedures. It is equally important that the potentially significant quantitative and qualitative losses that could occur during ocean and land transport are kept to a minimum.

Experience in the receiving countries and at the ports of discharge often reveals that insufficient attention is being paid to ensuring the quality assurance of the food aid grain – the procedures for procurement can result in grain of inappropriate quality being delivered. This can be the result of incorrect technical specifications being used for the purchase of the commodity or, when suitable specifications have been set, the failure to ensure that suppliers provide grain of the required standard. Receiving agencies are often reluctant to be as critical about the quality of food aid as they would be with normal commercial imports.

The qualitative and quantitative losses caused by insects, fungi and rodents that commonly occur after delivery can be minimised if a sound technical capability in stock management and pest control is

an integral part of the relief operation. The need for this technical competence might be overlooked, either because relief and donor agencies are deeply preoccupied with major logistical difficulties, or because it is assumed to be the responsibility of the recipients. In-country losses are frequently unrecognised or not recorded because the data collection systems set up to monitor the distribution are not designed to keep a check on weight and quality. Most systems are based solely on the number of bags delivered. It is normally assumed, perhaps naïvely, that, when the bags reach the beneficiaries, the grain has the same weight and quality as when it left the port of discharge. Where losses are recognised, the parties concerned rarely publicise any of the details because of the sensitive nature of such disclosures.

Contrary to popular perception, food aid grain is an expensive commodity. While grain prices on world commodity markets might demonstrate a historically declining trend, it is recognised that the handling, shipping and transport costs needed to deliver food aid grain greatly increase the end-value relative to the FOB cost. Experience in Mozambique and Sudan clearly illustrates that the cost of food aid grain can increase by more than fivefold by the time it reaches beneficiaries in remote areas (Walker, 1992). The lead time to replace losses in many countries will often be four to six months, assuming that further supplies are available.

FOOD AID GRAIN QUALITY STANDARDS

Intercontinental Procurement

All food aid grain that is transported from one continent to another is initially purchased, often by open competitive tendering, from a national or international grain market. The technical standards specified in the procurement contract will not only determine the initial quality at the time of purchase but also how well it will meet the requirements of the beneficiaries and how well it will withstand the handling, storage, distribution and environmental conditions both en route and at its final destination. Some of the losses experienced with food aid grain in the recipient countries can be directly attributed to inadequacies in the quality standards stipulated at the time of procurement. This is particularly the case where shipments are made from temperate to tropical climates.

Many of the problems arise because the grain quality standards used for procurement are commonly based on those for intervention operations in Europe or the commercial grades offered for sale in the USA and Canada. These technical specifications are not always appropriate even for safe storage of the grain in temperate regions, and are quite unsuitable for grain storage in tropical climates. The normally acceptable levels of foreign matter, broken or other defective grains considered suitable in temperate climates increase the potential, in tropical climates, for damage by insects and moulds, but the most important factor is the grain moisture content (Boxall and Gough, 1993).

For grain to be maintained in good condition in warm climates, it must have a lower moisture content than when it is stored in cool climates. The maximum safe moisture level for wheat and maize is in equilibrium with 70 per cent relative humidity. As an approximate guide, safe moisture levels decrease by 1 per cent for every 10°C increase in temperature. Inadequate attention to the requirement for lower moisture content will result in losses which, although variable, may be as high as 100 per cent in exceptional circumstances. There have been several reported instances in recent years of food aid grain being damaged because it was procured at too high a moisture content, sometimes leading to toxicological problems (Walker, 1992). However, none was as potentially serious as a recent situation in Zambia.

One million tonnes of maize were imported into Zambia during the southern Africa drought of 1992–3. Zambia had earlier abolished all formal maize standards under the 1989 National Agricultural Marketing Act, but the accepted maximum moisture content for safe storage of maize in Zambia, and indeed throughout the Southern African Development Community (SADC) region, is 12.5 per cent (Tyler *et al.*, 1994). However, for the one million tonnes of food aid maize, the maximum moisture content was either specified as 14.5 per cent, according to EU quality specifications for food aid maize, or not specified at all for the maize imported from the USA. An analysis of the available moisture contents of individual shipments indicated values within the range of 13.2–14.5 per cent. The effect was to reduce the shelf-life of the maize to four months. One million tonnes of grain were at serious risk of heating and deteriorating as a direct consequence of the deficiencies in the international procurement procedures. Large quantities of the maize were damaged, with a risk of mycotoxin contamination, as a direct result of the moisture content

being too high for safe storage under local conditions. The high moisture content predisposed the stocks to insect infestation, and over 220 000 tonnes of food aid maize had to be fumigated at substantial expense. Only by exceptional management intervention was the quantity that had to be downgraded to animal feed restricted to 100 000 tonnes. While this was a moderate loss in terms of percentage, the financial costs of sampling, salvaging and rebagging were considerable.

The deficiencies in the standard of grain supplied to Zambia were detected, fortunately, very early in the programme. However, the problem is more widespread because potentially serious situations remain unrecognised and significant losses go unreported. A consignment of grain with a moisture content unsuitable for long-term storage in warm climates may appear to be in good condition when unloaded. Once in store, the surface of the stack may remain free of damage and retain its natural colour, but deep within the commodity heating and discolouration can spread rapidly to such an extent that the whole core of the stack subsequently has to be down-graded to animal feed, or destroyed by burning or burying (Tyler, 1992).

Experience has shown that, for shipments destined for or transiting through tropical areas, the maximum moisture content for wheat should be 14.0 per cent. The Overseas Development Administration of the United Kingdom (ODA) and the World Food Programme (WFP) correctly have a maximum tolerance of 14.0 per cent for wheat, unlike the EU, which has a maximum tolerance of 14.5 per cent. The maximum moisture content for maize should be 12.5 per cent; exceptionally, 13.5 per cent. The EU has a maximum tolerance of 14.5 per cent for maize. The standard grading system in the USA for maize and wheat does not now stipulate maximum tolerances for moisture content. Importers need to be aware of this when requesting, for example, US Grade Number 2, because moisture content is negotiable with the supplier. To order US grain by grade only will result in the moisture content being decided unilaterally by the suppliers, as was the situation with the Zambian drought relief operation in 1992–3. Moreover, the moisture content should be determined by methods equivalent to those prescribed by the International Standards Organisation (ISO). Exporters sometimes use other methods that have been shown to produce results between 1.0 per cent and 1.5 per cent lower than would have been obtained by ISO-equivalent methods.

Clearly, the moisture content of food aid grain originating from temperate climates is often too high for safe storage at the tropical

destination. However, donor organisations and grain exporters responsible for arranging food aid shipments may either be unaware of the technical requirements for good management of grain in tropical climates, or they overlook these requirements because shipments are arranged at short notice.

In commercial grain contracts, importers may specify particular requirements relating to safe storage, paying a premium if necessary. Recipients of food aid are rarely able to make demands and may feel obliged to accept whatever is provided. However, it is understood that Sudan recently set especially low moisture content tolerances for wheat shipments from Belgium.

It is uncommon to have difficulties in obtaining low-moisture wheat. In fact, when the ODA reduced its moisture content tolerance in 1991 there were no adverse reactions from the trade. However, there can be operational problems with maize, particularly in North America. Drying at high temperatures can produce stress cracks in the grain, which may lead to increased levels of broken grain during mechanical handling. The amount of handling damage will be less for bagged cargoes. Two-stage drying with a tempering stage will reduce stress cracks, but at harvest the driers are normally working at full capacity and there is little time for such staged drying.

It would be preferable to despatch the grain in a condition that will inhibit the effects of climatic change and the anticipated handling procedures and storage conditions. Any supplementary costs of drying prior to procurement will be offset by reduced losses. Additionally, it would be more appropriate to calculate the costs of food aid on a dry-weight basis rather than the more normal wet-weight basis. Shipping drier grain means more food value and less water. Whereas suppliers of grain are pleased to receive US$100 to US$150 per tonne for shipping water, it is the food value of the shipment that matters to the beneficiaries.

Local and Regional Procurement

An alternative to the intercontinental transport of grain is to procure it locally within the recipient country or in neighbouring or regional countries. While very large quantities of food aid grain are still transported over long distances around the world there has been a significant increase recently in the proportion of food aid grain procured locally or regionally.

In 1987, when relatively minor quantities of grain were locally sourced, the delegates at the 23rd meeting of the Committee on Food Aid Policies and Programmes urged the WFP to increase these operations wherever possible (Relief and Development Institute, 1990). By 1993, two-thirds of the WFP's food purchases, valued at US$263m, were being made in developing countries (World Food Programme, 1994). In 1994, the WFP conducted local purchases in thirty-two African countries, involving 665 334 tonnes valued at over US$122 m.

EuronAid reported an increase in local and triangular purchases by its member NGOs, from 30 per cent of over 600 000 tonnes in 1992 to 62 per cent of over 350 000 tonnes in 1993 (EuronAid, 1994). A call for greater local purchase was made at a meeting of the Food Aid Committee convened to draft the 1995 Food Aid Convention (International Wheat Council, 1994). The ODA has a stated policy of encouraging triangular transactions and local purchases in situations where this does not affect the local market adversely. The potential advantages of local procurement include faster delivery, lower costs, locally acceptable varieties, and a stimulation of the local market. In most instances the commodities purchased are the local staple cereals, such as white maize in southern and eastern Africa, sorghum and millet in Ethiopia and Sudan, wheat in Ethiopia and Pakistan, and millet in south-western Chad. In some instances, pulse grains are purchased to complement food aid cereals.

Experiences have varied. Local purchase transactions in some countries have presented no problems, while the reverse has been true in other countries. Some of the problems are considered to result from purchasing staff having inadequate experience in commodity trading. Difficulties have frequently centred on unreliable supply, late delivery and poor quality of grain, underweight sacks, and insect infestation arising out of the use of contaminated sacks.

The frequency and scale of the problems associated with purchases are often specific to site, country or season. Where purchases can be made from well-organised state sector or parastatal suppliers, such as in South Africa or Zimbabwe, problems with pricing and quality ought to be minimal. Difficulties tend to arise more commonly in less well-organised markets such as those in Ethiopia, Malawi, Mozambique and Uganda.

Some organisations publish invitations-to-tender through national newspapers. Others, in common with EuronAid and WFP, undertake an assessment of potential suppliers prior to establishing formal commitments. The latter approach appears to be more successful because

it gives the purchaser an early 'feel' for the whole market. This provides a basis for subsequently contracting the supply of individual lots, of which the availability has previously been confirmed. A rapid assessment of performance then permits a change of supplier, if necessary, or a follow-up contract to reward good performance. The ability to switch between suppliers should create a responsive and competitive market.

Difficulties in comparing bids and evaluating performance frequently arise when detailed commodity specifications are not prescribed or not adhered to. This is commonly the case when locally appropriate specifications are non-existent, or not known, or unavailable to the purchaser. The issue is further complicated by some countries having different definitions of such terms as broken grains, discoloured grains, and moisture content. The WFP is understood to be knowledgeable on local specifications in the seventy-three countries where it undertakes local procurement. EuronAid has similar experience and has additionally developed last-resort specifications of its own for a few commodities. The Natural Resources Institute has compiled a database of available food grain standards in countries receiving and supplying food aid (Clarke and Orchard, 1993).

Stipulating the most appropriate specifications for the grain is extremely important. In addition, it can also be difficult to get samples of the submitted grain checked by an authoritative laboratory in the country of purchase to ensure that it complies with the specifications. Where it *is* possible, there can be long delays, such that by the time the analysis is completed the much needed grain might necessarily have been distributed.

Those organisations that make only an occasional local grain purchase will probably continue to have the greatest problems unless local staff are trained in simple grain sampling, grading and inspection techniques. However, as local experience grows and a knowledge of the commodities and the necessary trade connections are developed, so will local proficiency.

Cargo Superintendents

When trading in grain, either locally or internationally, it is accepted and recommended practice to employ the services of a cargo superintendent. The superintending company should have no manufacturing, trading or financial interests in the transaction and thus should be able to provide an independent and impartial service of assessment,

verification, advice and certification relating to the quality and quantity of the consignment. The services provided typically include quality inspection, supervision of loading and discharge, tallying and ascertaining the weight, or undertaking any other role that will safeguard the position of the principal.

In practice, the cargo superintendents provide the only meaningful check that the grain supplied *does* match the procurement specifications. Hence the selection, the terms of reference and the management of the cargo superintendents are important factors in monitoring the quality of a consignment of food aid grain. Experience demonstrates that it can be extremely difficult to obtain a satisfactory cargo superintending service at the ports where food aid grain consignments are normally discharged. This is despite major international superintending companies having local subsidiaries or agents that claim to offer reliable and efficient services at these ports.

One major supplier of food aid has concluded that little reliance can be placed on inspections at the port of discharge and that the services contracted there should be limited to little more than visual checks and tallying. A direct consequence of this policy is that full responsibility, and the only opportunity for ensuring the grain is up to specification, rests with the cargo superintendents at the time of purchase or loading. Other major providers of food aid take a different position for their shipments. They are of the opinion that even the largest and most well-known international cargo superintendents cannot be relied upon totally, and hence it is necessary to attempt full inspection services at the port of discharge to achieve some degree of check on the service provided at port of loading.

Notwithstanding the criticisms that have been made of cargo superintendents concerning intercontinental procurement, a greater use of their services in local procurement could alleviate many of the difficulties highlighted above. Not only should they safeguard the general interests of the purchaser, they can also be expected to have procedures for sending samples by air courier to internationally recognised laboratories for rapid analysis.

LONGER DELIVERY LEAD-TIMES

When merchants or brokers are asked to tender for the supply of grain their prices will be determined by several factors, one of which will be the delivery lead-time. A short delivery lead-time will limit and

constrain the range of supply and availability options for grain and transport, thus reducing the level of competition and thereby tending to increase prices.

The very nature of food aid requires that it is often necessary to supply with the minimum of delay. In instances where a short lead time is unavoidable, it should be recognised that there will most probably be a cost implication. However, in many food aid programmes it is possible, or indeed necessary, to phase deliveries over several months. It is reported that the United States Department of Agriculture favours NGOs placing their forward calls at 60 days' notice rather than 30 days, to strengthen their ability to purchase commodities at better prices (Anonymous, 1995). Such forward planning could lengthen supply lead times and thereby result in a more competitive market with increased choice of suppliers and vessels. The result could be cost savings.

In recipient countries that have food security reserves it might be possible to negotiate the draw-down of contingency stocks as early as possible to meet the urgent needs of the beneficiaries, and then arrange shipments, with longer lead times, to restock the reserve possibly several months later. For example, the Emergency Food Security Reserve in Ethiopia could fulfil this role. There would also be advantages to the donor in being able to avoid shipping at times when the ports are congested and thereby reduce port costs. The managers of food security reserves are required to rotate stocks to minimise the overall age of the grain, and thereby minimise quality losses. Draw-down and subsequent replenishment by donors would facilitate this rotation. Similar draw-down arrangements might also be possible in countries where the WFP has substantial stocks in-country, or a well-stocked pipeline. Where the local stocks are sited at a greater distance from the beneficiaries than the normal port of discharge there would be increased in-country transport costs. However, the cost efficiencies gained by increasing the procurement lead time could be expected to offset such costs.

CONSOLIDATION

Cost efficiencies could accrue from an increase in the use of cargo consolidation. This is the procedure whereby several small consignments are consolidated into fewer, but larger, shipments. On arrival at the port of discharge the consignment would be sub-divided for in-

country distribution. This arrangement, which is considered to be under-utilised, is particularly well suited to food aid grain being shipped for subsequent distribution by a number of local or international NGOs. Potential for consolidation will be greatest where forward planning reveals a projected need for several shipments to be consigned to a single country.

Both the WFP and EuronAid state clearly that consolidated cargoes, being larger and therefore benefiting from economies of scale, would bear reduced administrative, freight and service costs. Recently, the WFP shipped 15 000 tonnes of bulk wheat donated by the EU, together with 6000 tonnes from France, all to Ethiopia. Whereas the 15 000 tonnes would have cost US$33.50 per tonne to ship, the combination of 21 000 tonnes was shipped at US$32.00 per tonne.

It is recognised that, in some instances, there could be a need to limit the extent of consolidation because of the logistical problems created when very large consignments are discharged at particular receiving ports during a short period of time, thereby overstretching local transport, storage and handling capabilities, especially when bulk grain needs to be bagged.

PACKAGING

Grain may be bagged before shipment or, more commonly, may be shipped in bulk to be bagged during discharge at the quayside. Financial and logistical considerations commonly favour the supply of bulk grain. Where there are adequate bagging facilities at the port of discharge this arrangement should not present any problems. The adequacy of the bagging operations will depend not only on speed but also on the attention given by the operators to ensure that bag weights are standard, for example 50 kg net, with minimal variation.

It is important to note that any problems arising from the shipment of grain with too high a moisture content, or from shipments that conform overall to the correct tolerance but have wide variations in moisture content of individual lots, will be exacerbated by bulk shipment. Hence, the tendency towards shipment in bulk should be accompanied by an increased appreciation of the significance of the moisture content.

The choice of bagging material is between jute, woven polypropylene (WPP), and a mixture of the two, known as composite. Jute is a

natural fibre produced primarily in India and Bangladesh (FAO, 1995b) and has traditionally been used for grain sacks. Polypropylene is produced by the petrochemical industry and has become widely used for grain sacks since the early 1980s.

The advantages of WPP sacks are that they weigh much less than their jute equivalents and are normally less expensive. In the UK, a WPP sack is only half the cost of an equivalent jute sack (FAO, 1995b), while in Zimbabwe it costs only a quarter. However, WPP sacks have the disadvantage that they have a limited life when exposed to sunlight (UV radiation), although the degradation and thus the onset of structural failure can be delayed by the incorporation of UV protectants. Failure of the sacks results in grain losses as a result of spillage, and rebagging can be a slow and expensive procedure. Additionally, WPP sacks have a slippery surface that makes safe stacking more difficult.

The latter factor is important in food aid operations, since there is often a need to stack as high as good warehouse management will permit to utilise fully the limited storage capacity, but stacking commonly has to be undertaken by unskilled labourers. Several injuries and at least one fatality resulting from the collapse of stacks of WPP sacks have occurred during recent food aid programmes in Africa. Stack collapses have also resulted in damage to the walls of stores. Slip resistance can be conferred to some extent by special fabric weaves, as used in South Africa and Zimbabwe, or by surface treatments with various anti-skid materials. In practice, the effectiveness of these, especially after the first handling, is uncertain.

The increased use of WPP sacks has been linked with the occurrence of a problem, associated with medium-and long-term storage of large stacks of maize in Africa, known as 'stackburn'. The maize in the core of the stack begins to heat and consequently darken to the extent that it is unacceptable for human consumption and has a limited value as animal feed. The role of WPP sacks in these situations has yet to be clarified.

Despite the apparent low-cost attraction of WPP, the subsequent storage and handling problems have persuaded many food aid organisations that jute or composite sacks are preferable. All EuronAid grain consignments are packed in jute or composite sacks, as are most of the EU's food aid grain commodities. An additional benefit of jute sacks is that, unlike WPP sacks, they are frequently re-used for many purposes within recipient countries.

CONCLUSIONS

International donor agencies should recognise actively the potential for innovations in procurement and delivery procedures that could result in a marked improvement to the effective delivery of food aid while also contributing to improved cost efficiency. Reduction of transit and storage losses will protect the investment and assist in ensuring that the needs of the beneficiaries are met at the least overall cost.

Grain quality standards used in intercontinental procurement should relate to the requirements of the climate and to the handling, storage and distribution systems in the recipient countries rather than commercial practices in the country of production. The single most important quality standard is the moisture content of the grain. The potential for major qualitative and quantitative losses resulting from too a high a moisture content is considerable, as illustrated by recent events during the drought relief operation in Zambia. The ODA has prescribed a lower tolerance for moisture content in wheat than has the EU. Belgium is reported as procuring low moisture content wheat for Sudan. There are examples for other national and international food aid donors to follow. Any additional costs incurred through the procurement of drier grain will be offset by reduced shipping costs and reduced losses.

Local and regional procurement is becoming more common. The frequency, scale and nature of problems associated with local procurement are often site-, country- or season-specific. Difficulties tend to arise more frequently in countries with less well-organised markets. Despite the wealth of experience gained recently, there is a need to improve the operational and management of tendering, inspecting and purchasing. Greater efforts are required to determine the most appropriate commodity specifications to use when tendering. Studies are needed to establish practical and effective local monitoring procedures to ensure that grain supplies comply with contractual requirements.

Cargo superintendents have an important role to play in providing an independent service of assessment and verification in relation to the quality and quantity of the consignment. In practice, the services provided will provide the only meaningful check that the grain meets procurement specifications. Experience indicates that often there are deficiencies with the available superintending services, and food aid organisations are advised to ensure that these services are adequately managed.

When it is essential to deliver food aid grain quickly no efforts should be spared. However, short delivery times have a cost implication that must be recognised. Where forward planning or the drawing-down from in-country stocks permits longer lead-times, the resultant more competitive market, with its increased choice of suppliers and vessels, can produce cost savings.

Forward planning might also offer opportunities for reduction in shipping costs through the consolidation of cargoes.

On the basis of sack cost alone, the choice of woven polypropylene would appear to offer cost savings over the use of jute for grain packaging. However, field experience indicates that the additional investment in jute or composite sacks has handling and operational advantages that can reduce overall cost.

In summary, it would appear that there is significant potential to improve the efficiency and cost-effectiveness of food aid grain delivery.

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18 Laws for the Rich and Flaws for the Poor? Legal Action and Food Insecurity in the Kalahandi Case

Bob Currie

> Kalahandi is one of the thirteen districts of the State. Bolangir is another. In these two districts, which form the western part of the State, tribals are in the majority. Poor as they are, their miseries know no bounds when they become victims of natural calamities. Exploited as they are, when nature also turns against them in the form of drought, they have no-one else than the democratic Government to come to their rescue. (Chief Justice B. L. Hansaria, cited in High Court of Orissa, Cuttack, 1992, Paragraph 1).

> It is a fact beyond dispute that a petition without the backing of force, is useless. However... petitions serve a useful purpose because they are a means of educating people. They give the latter an idea of their condition and warn the rulers. From this point of view they are not altogether useless. (Mohandas K. Gandhi, *Critique of Modern Civilisation*, 1909) [1]

The decade since the mid-1980s has marked an increased recognition on the part of development agencies and aid donors that democracy may represent an essential requirement for sustainable and equitable economic development. Recognising that corrupt and unaccountable authoritarian governments often lack the necessary governmental and administrative infrastructure to implement successfully the neoliberal development strategies widely advocated by the 'Washington Consensus',[2] the World Bank in particular has been a prime mover in arguing that 'good government' is a vital prerequisite for economic progress. A consequence of this trend has been that the World Bank

has significantly increased the political content of its policy advice to borrower countries, with measures to promote political pluralism, administrative accountability and social justice (including respect for human rights, judicial independence, freedom of speech and press activity) introduced alongside more traditional concerns with economic liberalisation in its conditionality requirements (World Bank, 1992; Lancaster, 1993; Moore, 1993; Osborne, 1993).

However, this interest shown by policy analysts in democratisation has not remained limited to its implications for economic development. Indeed, this process has also been recognised to have important implications for efforts to promote food security.[3] Within a democratic framework, government-sponsored relief and development programmes provide one vital component of a safety net designed to protect the access of the population to food and other requirements. Recognition of the importance of state intervention in famine prevention is not new, but was clearly identified (albeit in a less refined form) in relief codes introduced by the colonial government in India during the nineteenth century.

However, an important change that has taken place since the introduction of the Famine Codes in India has been a recognition that the simple existence of such a set of relief guidelines is not on its own sufficient to ensure that these are rigorously implemented in practice. Indeed, a number of instances can be identified historically where such provisions have been available to the government, but where these have not been put into action because the government has refused to acknowledge the presence of famine.[4] Therefore, since governments may find it politically expedient to conceal the occurrence of famine and other disasters, the existence of a wider set of democratic institutions and processes which keep the public informed of crisis as it develops, and which ensure that elected representatives in government remain accountable to the public, may play an essential role in placing pressure on governments to implement necessary relief measures.[5]

It is the supposed existence of such a democratic framework in India, and its absence in some states (particularly in Africa)[6] which have experienced severe famines in recent years, that has widely been felt to explain the differing capacities of these regions to prevent mortality associated with famine. In turn, because India has experienced no major famine since 1943,[7] various attempts have been made to identify an 'Indian model' that can be used as an archetype for famine prevention in other countries.[8]

At the heart of this so-called 'Indian model' has been a codified set of guidelines for administering relief contained in State Relief Codes. These are implemented by regional governments when a 'natural calamity' such as drought, flood or cyclone is deemed (in the opinion of the regional government concerned) to exist. A second key component of India's state-managed social security system is a public distribution system (PDS) through which families on low incomes can purchase subsidised commodities from a network of fair-price shops. Third, alongside relief measures that only come into operation when a 'natural calamity' is declared, regional governments maintain a wider array of programmes addressing health, education, irrigation, poverty-alleviation, and other social and economic concerns. These operate in so-called 'normal times' in addition to periods of crisis.

However, importantly, alongside this government-maintained safety-net, the apparent 'success' of the 'Indian model' has also hinged upon a wider set of factors within a democratic framework designed to promote a well-informed and politically conscious population, with channels for effective political participation and representation.[9] These factors include: regular 'free and fair' elections within a system of multi-party politics; freedom of speech and public access to information disseminated by a free and active news media; and an independent judiciary with powers for members of the public to challenge the actions of the government in the law courts.

This chapter examines more closely the relationship between democracy and food security in India in a practical context. It suggests that, while a hypothesis suggesting a connection between these two variables seems most convincing at a theoretical level, a shortfall in the existing literature is that this has commonly failed to provide case-study evidence to illustrate how these democratic institutions and processes operate to promote food security in practice.

In attempting to address this shortfall, this chapter narrows the focus of its study to examine how one particular component of Indian democracy, namely accountability before the law, serves to promote food security in Orissa's much publicised Kalahandi district. The role of the law courts has been particularly significant in this context, in providing the locus for public action designed to draw attention to government failures to combat poverty and hunger in the district.

Despite the enormous media attention that Kalahandi has received in India since the mid-1980s, it is important to recognise that this district is far from unique in experiencing problems of poverty, hunger and restricted development. Indeed, while Kalahandi, probably more

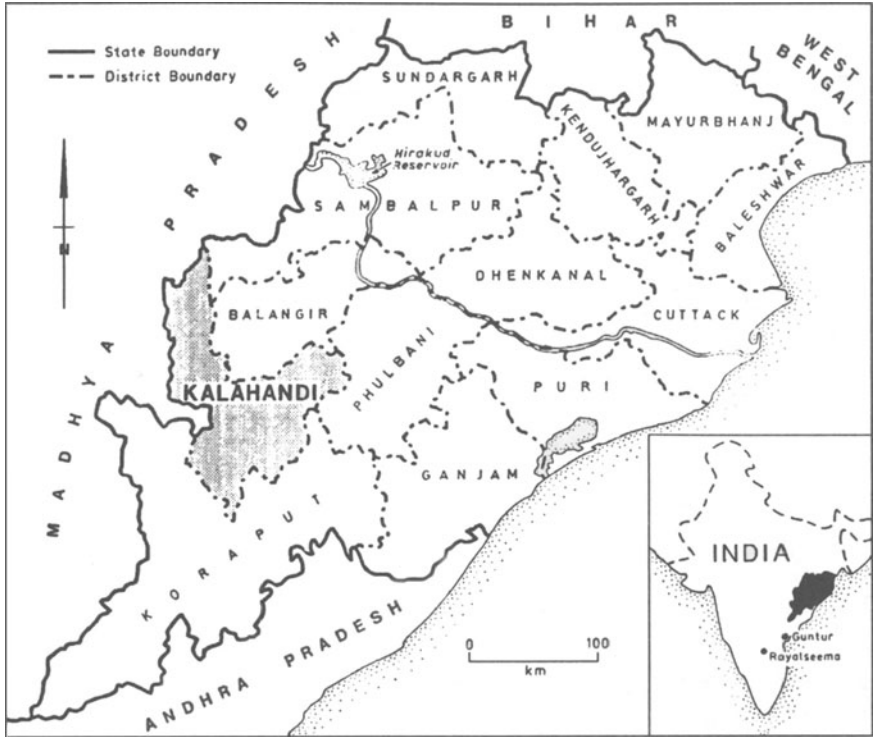

Figure 18.1 The Orissa State

than any other district in India, has become associated in public opinion with drought and food insecurity, similar difficulties also prevail, sometimes with greater severity, in other districts in Orissa and in other parts of the country. Indeed, it is not food insecurity alone, but rather its combination with a wider set of factors that has brought such widespread attention to this district. This has included particularly the crucial role played by elected representatives in regional government, voluntary organisations, the law courts, and other agencies, in placing pressure on the state government to act in response to these problems.

Indeed, a petition sent to the Supreme Court of India in 1985 by two Kalahandi social workers drew attention to the failure of the state to take satisfactory steps to promote development and to administer relief in response to drought and starvation. Responsibility for these interventions is declared in the Orissa Relief Code to lie with the state government. On the basis of an investigation commissioned by the Orissa High Court, the Government of Orissa was ruled to have done little to ameliorate the distress that prevailed in the district. This also concluded that deaths had occurred because of 'starvation' in the district, a point long denied by the Chief Minister, J. B. Patnaik.

This chapter examines the circumstances in which this unprecedented legal action was brought against the Government of Orissa by concerned members of the public. It further evaluates the effectiveness of this action as a means of promoting long-term improvements in food security in the district. While it lends support to the hypothesis that this factor, as part of a wider democratic framework, holds considerable potential for prompting efforts to combat hunger and poverty, it argues on the basis of case-study evidence that the lasting significance of this public action in promoting this goal in practice should not be overestimated. Indeed, a firm determinant relationship between these two variables remains essentially unproven in a practical context in Kalahandi.[10]

METHODOLOGY

This study utilises data collected as part of a ongoing longitudinal study examining the relationship between democracy and food security in Orissa. Initial fieldwork was carried out by the author in western Orissa between January and August 1992. An additional follow-up study was carried out between January and April 1994. Information

relating to legal action brought against the Government of Orissa is drawn largely from reports of the Orissa High Court and the Supreme Court of India, and from reports of the respective Mishra Commission and Panda Commission appointed by these courts. This is supplemented with information collected during interviews with the petitioners concerned, and with government officers responsible for administering state relief and development programmes. An independent evaluation of the nature of food insecurity in Kalahandi, and public assessment of the government's response to this problem, was made on the basis of semi-structured group and individual interviews conducted by the author in three villages in Kalahandi's arid Nawapara subdivision, and two villages in the hilly, predominantly *adivasi* (tribal) Thuamur Rampur block.

PUBLIC ACTION IN THE LAW COURTS: CASES FILED AGAINST THE STATE GOVERNMENT IN THE SUPREME COURT OF INDIA

Legal proceedings against the Government of Orissa were initiated through public interest litigation brought by two social workers from Kalahandi, Sri Kishan Pattnayak and Sri Kapil Tiwari. In a petition sent to the Chief Justice on 21 October 1985 they drew attention to the impoverished condition of many people within the district, and the failure of the Government of Orissa to fulfil its duty, as specified in the Orissa Relief Code, to address these problems. Their basic concerns, set out in Writ Petition (Civil) No. 12847 of 1985, Kishan Pattnayak and Another *v.* The State of Orissa related to:

> a specific matter of utmost urgency concerning the famine afflicted area of Kalahandi, a district of Orissa. The extremely wretched condition of the people here could be highlighted only by a visit of the Prime Minister in July 1985. It can be imagined, therefore, to what extent the people are neglected by very organ of the society [*sic*]. These people are beyond the pale of juristic justice and what we are trying to present as a case is only one aspect of the unlawful and oppressive system that has replaced the legitimate functioning of the state. (para. 1)

The petitioners drew attention to shortfalls in the effectiveness of the safety net provided by the state. Importantly, they pointed out

that, although legislation does exist on paper that permits government officers to intervene to prevent exploitation of the vulnerable, this generally fails to provide necessary protection in practice because government officers fail to implement these regulations effectively. The petitioners identified a number of situations where such a situation existed.

First, they suggested that legislation exists in Orissa designed to prevent cultivators from being forced to sell their crops at distress sale prices. Indeed, owing to the insecurities attached to agricultural production in Kalahandi, and the limited crop that can be grown by many cultivators on their small plots, farmers are often unable to produce sufficient food to sustain them until the next harvest. To compensate for this shortfall, cultivators are regularly forced to borrow from moneylenders at high rates of interest.[11] In their urgency to generate cash after the harvest to repay loans and to meet other requirements, cultivators are thereby forced to sell their crop at low post-harvest prices. Although a state-regulated minimum sale price does exist within Orissa designed to eliminate this problem, many private traders ignore this law and continue to pay below this legal minimum:

> About ninety per cent of the farmers of the Nawapara subdivision of Kalahandi district are among the poorest in the country. They live in subhuman conditions and are unable to resist the pressure of the unlawful system which has replaced the state administration. They are compelled to sell their only product (Paddy) at the rate of rupees fifty a bag (weighing 75 Kgs.) while the statutory minimum rate is Rs. 106.50 (ibid.: para. 4)

The petitioners went on to suggest that not only have government officers failed to prevent distress sales, but in some cases the merchants concerned are in fact employed by the government as procurement agents for the Food Corporation of India.[12] While such a situation persists, they rightly pointed out, farmers have little opportunity to escape from the poverty and hunger that prevails in the district:

> Definite laws and rules have been laid down by the centre and the state for preventing what is known as 'distress sale' of foodgrains by peasants. The relevant state machinery headed by the district Collector is expected by law to prevent sale of paddy at a price below the minimum price... [T]he administration is expected to make

necessary grassroot arrangements for fair price purchase if it is unable to curb the unlawful practice of the private traders, some of whom have obtained purchase licences from the state Government (generally there are intermediaries who act on behalf of these licensed purchasers) [*sic*]. The price-loot per bag in the case of farmers in some districts like Sambalpur is Rs 20/-per bag. But in the Nawapara subdivision of Kalahandi and adjoining areas it is Rs 50/-to Rs 70/-per bag. *How can the farmers and peasants who suffer such huge losses every year withstand the ravages of drought which has been a regular feature since 1984.* (ibid.: para. 7).

Second, the petitioners pointed out that, as a result of their limited asset holdings which they can provide as security for loans, poor farmers and landless labourers regularly have difficulties in obtaining credit from banks and other institutional lenders. Consequently, they are forced to look to moneylenders (*Gountias* or *Mahajans* as they are commonly known locally) to meet their credit needs. Alongside loans which demand repayment in cash, a range of loan arrangements also exist. These may, however, endanger the long-term economic security of the borrower.

(i) *Land mortgage* – where borrowers are forced to mortgage land against money advanced by the moneylender.[13] However, the petitioners pointed out that such loan arrangements have led to rising land alienation in the district as farmers, faced with repeated years of drought and crop failure, are forced to forfeit their land on being unable to repay.

(ii) *Labour service* – where loans are made on the condition that the borrower pledges his or her labour to the moneylender. The petitioners again pointed out that borrowers are sometimes unable to escape from these labour contracts because they are unable to repay the full loan, and consequently become locked into this arrangement as 'bonded labourers'. This is known locally as *vahabanch*, or 'hands are bound'.[14]

In sending this statement to the Supreme Court, the petitioners specified that it was not their intention to seek punishment for those responsible for the forms of exploitation mentioned above, but instead to draw these issues to the attention of a wider number of people. The crux of the petitioners' objectives are detailed in the following statement:

> Our prayer is implied in the narration of the case. The state government has to be directed to do its legal duty, to function properly and efficiently so as to eliminate the unlawful system of bondage whereby the farmers are compelled to sell their produce at an exorbitantly low rate and the labourers are forced to work for low wages. We are not interested about the punitive steps either against the petty traders or about the petty wagegivers. The Court in its wisdom may do anything... We however suggest that the Court may immediately, even pending enquiry, direct the state of Orissa to take steps on a war-footing to prevent the distress sale of paddy in Kalahandi and neighbouring areas. Secondly the Court may appoint an investigating team to get a full picture and wide implications of this phenomenon. Thirdly the Court may at a later and more convenient date take up the consideration of the case on a grand scale. Such a consideration is necessary because the problem is not limited to a small part of Orissa. It is destroying the economic backbone of the agrarian population of the State (ibid.: para. 9).

In addition to the above petition sent to the Supreme Court by Sri Pattnayak and Sri Tiwari, a further petition identifying similar government failings was forwarded to the Supreme Court in 1987 by the Indian People's Front, a Maoist group based in Bihar.[15] This also referred to the miserable condition of many inhabitants of the Kalahandi and Koraput districts. It stated that drought, disease and famine had been a regular occurrence in these areas since 1985 and went on to argue that the state government is guilty of 'utter failure' to protect the lives of the people of the two districts. Consequently, deaths that occurred in these districts during this period were the result of the 'utter callousness and negligence' of the Government of Orissa and its District Administration.[16]

In response to these petitions, the Congress (I) Government of Orissa filed counter-affadavits denying the allegations made. The Chief Minister, J. B. Patnaik, continually maintained that there was 'nothing abnormal' about the prevailing situation in Kalahandi, and strongly denied that deaths had taken place because of starvation in the district. Indeed, shortly before the Supreme Court launched an inquiry into these allegations, the Government of Orissa placed a quarter-page advertisement in a number of national daily newspapers entitled 'The Changing Landscape of Kalahandi'. This stated that:

> There can be no doubt that due to massive efforts of the State Government, the land and people of the district of Kalahandi are now undergoing a process of dynamic change which will result not only in the socio-economic uplift of the people but will also ensure transformation of the district of Kalahandi into one of the prosperous districts of Orissa.[17]

This statement was described as 'black lies' by the Opposition Janata Party leader in Orissa, Biju Patnaik.[18]

INQUIRY PROCESS INITIATED BY THE SUPREME COURT OF INDIA

On receiving these petitions, the Supreme Court of India appointed a two-man inquiry commission to assess the condition of the affected population of the district and the validity of claims made by the Government of Orissa that it had implemented satisfactory social welfare measures in the district. Before the inquiry even commenced this was pitched into controversy when, after an initial delay in its launch, the two original investigators were dismissed and responsibility for the investigation was transferred to a single official, District and Sessions Judge, Pratab Chandra Panda. No statement was made providing reasons for this change of personnel.[19]

Findings of the Panda Commission Inquiry

While public attention was drawn to the Kalahandi issue by publicity given to the original petitions sent by Sri Pattnayak and Sri Tiwari, India-wide press coverage increased markedly with the publication of the final report of the Panda Commission. Despite widespread public opinion within western Orissa that the state government had failed to fulfil its responsibilities to provide assistance to the vulnerable, the Investigating Officer, on the basis of his single-handed inquiry, refuted this allegation and ruled that the government had made extensive efforts to combat poverty and exploitation. Further, rather than laying blame for continued suffering in the district with the government, he suggested that the persistence of poverty and hunger was primarily the fault of the people themselves for failing to take advantage of the opportunities provided by government schemes. This, he argued, was principally because of their

own laziness and reluctance to take an interest in their own self-improvement:

> At this period, it cannot be said that various social welfare measures taken by the Government are sufficient or not, but enough measures have been taken by the Government to develop the people, specially the poor and downtrodden economically. In spite of all efforts of the Government, there is no marked development with the people or they are misutilising the different benefits conferred upon them and diverting those benefits in other manners and not for the purposes for which the benefits have been conferred.
>
> (Panda Commission (1988), p. 133)

Indeed, he argued that the government had provided adequate funds to help those in distress. However, the latter had failed to use state loans to improve their capacity to produce food and to generate income. Instead, they had chosen to sit idle and in many cases to spend this money on alcohol:

> It is widely known in this area that the liquor vendors and shopkeepers are only benefiting and persons who are getting loans with the provisos of subsidy for their economic development are not using the same and as such it is felt that these people are not taking an interest in their own economic development [*sic*].
>
> (Panda Commission (1988), p. 251)

The Investigating Officer also drew attention to the growing reliance of the poor on government schemes and hand-outs. This he declared to be a further sign of their lack of ambition. Regarding relief works, which provided remunerated employment for those in distress, he argued that 'labourers mostly in this part are lazy', and in many cases they failed to do sufficient work to justify earning their full wage (ibid., p. 346). Further, he argued that conditions were too lenient in state-managed food kitchens established to provide free food to the needy. Consequently, these were generating a culture of dependency among people who had no interest in helping themselves, and were instead happy to rely on Government doles to meet their needs:

> It is noticed that many people came to the feeding centres from the early morning and sit there until food is served. There is a common

> feeling with the people that if they make 'hullah' then the Government will continue in supplying free food to them. (ibid., p. 346)

In the eyes of the investigator, the state government was therefore to be commended for its efforts to help the poor. No government, he suggested, could realistically 'lift' people who were not genuinely interested in their own socioeconomic development. Only when the latter made a greater effort to improve their own self-reliance, and to end their dependence on relief and development schemes organised by the government, would there be a possibility of eliminating hunger and poverty in the district.[20]

Public Response to the Panda Commission

The conclusions of the Panda Commission were met with widespread scepticism by the petitioners and other concerned people within Orissa. The petitioners identified a number of issues that they felt called into doubt the validity of the inquiry process and the strength of the Investigating Officer's findings.

First, they pointed out that initial delays in the launch of the inquiry meant that the investigator did not begin his research until after the arrival of the monsoon. This factor consequently prevented him from visiting a number of the villages in interior pockets in the district which become inaccessible during monsoon time. Some of these villages were among those most severely affected in Kalahandi. As a result, they suggested that the investigator had failed to gain a full impression of the severity of distress in the region.

Second, the petitioners questioned why they were not invited by the Investigating Officer to assist him in his inquiry. Their participation, they suggested, was vital to ensure that he was taken to areas that were most acutely affected by drought and hunger. However, after an initial request was made by Sri Mishra for the petitioners and government representatives to assist him in his investigation, this request was later rescinded and the investigator chose to carry out his inquiry unaccompanied.[21]

Third, the investigator's conclusion that distress in the district could be blamed on the laziness of the local people severely undermined public confidence in the findings of the inquiry. It was widely felt that such an assertion failed to take into account the constraints faced by local people in promoting their own self-development. Lack of off-farm employment and low levels of education and training limited the

purchasing power that could be generated through paid work. Further, a large proportion of Kalahandi's agricultural land is not irrigated, restricting cultivation primarily to a four-month period after the arrival of the rains. The absence of double cropping leaves the majority of agricultural labourers unable to find employment between October and May without migrating to other areas. Therefore, while the Investigating Officer was correct to suggest that levels of activity in employment and agriculture were low at certain times of year, it was inappropriate to blame this on laziness.

Further, in suggesting that the people were uninterested in their own self-development, the Investigating Officer overlooked the debilitating effect that regular years of drought and food crisis in Kalahandi have had on public morale. By forcing people into debt, and into distress sales of land and other productive assets, these factors have undermined people's fall-back position and their future ability to produce food and to generate purchasing power. Similarly, these have eroded people's confidence in their ability to sustain a self-reliant livelihood without assistance from government schemes. In such situations, government efforts to reinforce the morale and self-respect of the victims of this cycle of degradation represent an essential component of effective relief administration. While this point is clearly recognised in the Orissa Relief Code,[22] it seems to have been ignored by the Investigating Officer.

Indeed, the failure of the Investigating Officer to recognise the constraints imposed on the rural poor by instabilities in agricultural production, and by the lack of alternative opportunities for employment, is exemplified by the final conclusion of his report which states that:

> due to the massive efforts of the State Government, the land and the people of Kalahandi are now undergoing a process of dynamic change which will definitely result not only in the socio-economic upliftment of the people but will also ensure complete change of the district into one of the prosperous districts of Orissa.
>
> (Panda Commission, 1988).

However, almost a decade years after the publication of the Panda Commission report, there is little evidence that the investigator's predictions have been realised. Far from becoming one of the most prosperous districts in Orissa, little impact has been made during the intermediate period upon the poverty and restricted development

prevailing in the region. With the benefit of hindsight it would appear that his confidence in the potential for economic and social transformation was largely misplaced.

Indeed, even at the time, few people living in the region could find any justification for the Commission's laudatory assessment of government interventions. For some local people its conclusions were so divorced from reality in Kalahandi, and so praising of the government's interventions, that they were felt to call into doubt the objectivity of the investigator. Subsequently, this report did little to satisfy public opinion that the efforts of the government, and reforms made on the basis of Sri Panda's report, would be sufficient to prevent similar distress in the future.

Final Report of the Supreme Court of India

It is noteworthy that, in producing its final report on these original jurisdiction cases, the Supreme Court failed fully to support the findings of its own Investigating Officer. This confirmed his conclusion that the state had gone to considerable efforts to address problems of hunger and poverty in the Kalahandi and Koraput districts. However, it refused to accept the conclusion of the Panda Commission that no starvation deaths had taken place in Kalahandi during the period under investigation. Rather, it stated that:

> *Although the learned District Judge's report is against the alleged starvation deaths, we are of the view that the happening of one or two cases of starvation deaths cannot altogether be ruled out.* (emphasis added) (Supreme Court (1989), para. 7)

When assessed on the basis of its own stated aims, the petition forwarded to the Supreme Court by Sri Pattnayak and Sri Tiwari achieved mixed success. First, while this succeeded in prompting the Court to launch an investigation to look into prevailing distress in the district, the Supreme Court failed to uphold the petitioners' request to take up further consideration of their case at a 'later and more convenient date'. Despite the important public impact which its final report made, the Court initiated no further action with regard to this issue.

Second, although the Supreme Court drew attention to the importance of state action to prevent exploitation of the poor, there is little evidence that the government ever acted on its recommendations.

Indeed, probably the most important contribution made by this legal action was to bring the issue to the attention of a wider public throughout India, and to increase the coverage this received in the press and in political debates in central and state government assemblies. Essentially the Government of Orissa had been exonerated by the findings of this inquiry, and few significant policy changes were made on the basis of its policy advice.

Indeed, the subsequent failure of this inquiry to satisfy public opinion that it would generate necessary changes in government policy was a crucial factor in motivating further legal cases against the state government in the Orissa High Court. Newspaper articles reporting that people were continuing to die in this region from malnutrition-related factors accentuated public concern regarding these administrative failures.

PUBLIC INTEREST LITIGATION AGAINST THE STATE GOVERNMENT IN THE ORISSA HIGH COURT

Two further public interest litigation cases were brought against the Government of Orissa in the Orissa High Court by concerned members of the public. The first was initiated on 17 October 1988 by Sri Bhawani Mund of Sinapali.[23] This was filed in response to allegations made in an article entitled 'When will the exploitation end?' in the *Sun Times*, an English language Orissa daily published in Cuttack. This article stated that the District Administration in Kalahandi had taken 'hardly any steps' to prevent local *adivasis* (tribals) from being forced into bonded labour relations with local *Gountias*. It also suggested (as pointed out in the Pattnayak/Tiwari petition sent to the Supreme Court) that poor *adivasis* in Kalahandi were forced to mortgage their land as a condition for obtaining credit from moneylenders. Consequently, land alienations had become a regular occurrence in the district because of the frequent inability of borrowers to repay their loans.[24] More generally, the article argued that suffering had continued in Kalahandi because of the Government's 'lax administrative machinery' and its 'apathy' towards these difficulties (Mishra Commission (1990), para. 2).

A second case was brought before the Orissa High Court by Sri A. C. Pradhan, a Cuttack advocate.[25] This argued that the 'economic backbone of the residents of ... Bolangir and Kalahandi districts had been shattered' as a result of chronic spells of acute drought since

1985, and resultant crop losses over successive years. In consequence, villagers had been forced to migrate in large numbers to other districts in search of work. In some instances they had also been forced to sell off their possessions, and sometimes even their children, to avoid starvation.

In response to the allegations made in the above cases, the Orissa High Court appointed retired District Judge Baidyanath Mishra to conduct an inquiry on its behalf through an order dated 2 March 1990. The launch of this inquiry was delayed by the government's failure to provide a guarantee that it would co-operate with the investigation. In consequence, this investigation did not begin until 1 October 1990. The Investigating Officer issued his final report on 16 March 1991.[26]

Findings of the Mishra Commission Inquiry

The findings of this Mishra Commission aroused major public interest when they were initially disclosed. They differed significantly from the conclusions of the earlier Panda Commission in making more overt criticisms of the state government's performance in dealing with poverty and hunger.

While the full report of the Mishra Commission addressed a wide range of issues, some of its most significant findings are as follows:

(i) This confirmed allegations made by the petitioners that land alienation was taking place from *adivasi* families in Kalahandi, and that this practice persisted in spite of laws under Orissa Regulation (2) of 1956 which prevented the transfer of land from an *adivasi* to a non-*adivasi* without the approval of the appropriate authorities. The inquiry therefore confirmed that this was another case where Government officers had failed to implement legislation designed to protect poorer sections of society (Mishra Commission (1990), para. 8).

(ii) It suggested that the Administration was at fault for its lack of initiative in addressing the problem of moneylending. It also confirmed a statement made in the *Sun Times* article stating that this situation was complicated by the fact that many *adivasis* did not perceive moneylenders to be their exploiters. Instead, because they are able to lend money at a time when the borrowers were most impoverished, the latter often respected moneylenders as 'Demi-Gods... who they think provide their daily bread' (ibid., para. 108).

(iii) This inquiry confirmed reports forwarded by Sri Pradhan that banks and co-operatives were taking drastic steps to recover loans from borrowers. This placed a heavy additional burden on borrowers who were primarily concerned at that time with using available purchasing power to meet immediate consumption needs (ibid., para. 17).

More generally this report confirmed the statements made by the petitioners that the rural economies of Kalahandi and Bolangir had been 'shattered' by repeated periods of drought and crop failure, and that development activities and relief measures had been inadequate to relieve the suffering that this had caused. Consequently, even 'well to do' farmers had been forced to sell off possessions to buy food, while some had been forced to migrate to neighbouring states in search of work. The report argued that the Government had made little effort to combat this rising trend of outmigration (ibid., para. 43).

However, perhaps the most significant conclusions of the Mishra Commission inquiry related to allegations of starvation deaths and child sale made by the petitioners.

Starvation Deaths

Cases of deaths caused by starvation in Kalahandi had been reported on a number of occasions in newspaper articles during the period of J. B. Patnaik's Administration. On each occasion these had been rigorously denied by the government. Three instances of starvation death were reported to the inquiry:

(i) The first was based on a newspaper report picturing two inhabitants of Darlipada village in the Komna block of Kalahandi who were said to have died of starvation. The Investigating Officer in this case rejected claims made in the article that starvation was the cause of death, even though the people may have been starving when the picture was taken. On visiting the village, the Officer found that one of the people, Trilochan Sunani, was still living there. The other, his wife Pat, had recently died. Both these people had been receiving a pension.

However, the Investigating Officer noted that these photographs had been taken by a press photographer in January 1989, at a time when the villagers were in distress from drought

and the authorities were doing nothing to rectify the situation, so the pictures had been taken to bring home to the authorities the need for action.

(ii) A second case received attention when a local Sarpanch, Sri Kishore Chandra Bhanja Deo, sent a report dated 30 June 1989 to the District Collector of Kalahandi and to the local Block Development Officer (BDO), drawing their attention to the fact that an *adivasi* family, that of Sukha Jani from Deypur, had been starving for around a month and was unable to earn any income. The Sarpanch stated that the family had been supported during this time by other villagers who were equally distressed, and that there was a strong likelihood that all members of this family would soon die unless food and medicine were sent quickly. Sukha Jani did indeed die several days after this report was sent.

On the basis of his investigations into this case, the Investigating Officer concluded in his report that 'Sukha Jani of Deypur is dead and there can be no doubt that he died of starvation' (Mishra Commission (1990), para. 39).

(iii) The report of the Mishra Commission described the third case of alleged starvation death as 'similar and more distressing'. On 20 February 1989 the residents of Sindhibhadi sent a petition to their BDO through Sarpanch Nadia Tandi of Badachergaon. This stated that four people had died of starvation in the village,[27] and that a further seven or eight people were likely to die if timely action was not taken by the state.

The Investigating Officer made a visit to the village on 21 December 1990, along with the BDO concerned, Sri D. Majhi. He spoke to about eighty villagers who attended his investigation. These, according to the investigator, stated that the four had died 'because they could not get any food' – in common parlance '*kichhi khaiba ku na pahi mori gole*', which the investigator suggested was exactly as starvation death was known locally. For some time previously villagers who were 'equally poor' had helped these people in their impoverished state. The remaining 'starving persons' were 'saved' on being taken to hospital by the authorities (Mishra Commission, (1990), para. 40).

A report later obtained by the investigator from this hospital indicated that these people had been suffering from anaemia. The investigator concluded on the basis of this report that the fact that these

'starving persons' had been suffering from this condition confirmed that they had gone for 'a long time' without food. He also suggested that this supported evidence supplied by villagers and by the Sarpanch, that those who had died had done so from starvation (Mishra Commission (1990), para. 41).

The conclusion of the Mishra Commission that starvation deaths had taken place in Kalahandi was highly significant. First, this was the first case of its kind where such a judgement had been made in an Orissa Court. Second, this refuted claims made by the J. B. Patnaik Government that no person had died from starvation in the district. Indeed, throughout the inquiry, the government maintained that deaths had resulted from other causes, including 'epidemics', meningitis and 'natural causes'. This is demonstrated, for example, in a meeting called in Bhubaneswar on 27 March 1987 to discuss a recent outbreak of deaths in Kalahandi. In response to questions, the Kalahandi District Collector at that time, Sri Chinmoy Basu, stated that of the 136 people that had died in the district since the beginning of February, seventy-two had died of meningitis and the remainder from 'natural causes'. He denied any possibility that starvation deaths had taken place, arguing in support of this conclusion that one of the people who died was a maidservant of a local BDO who used to eat in his kitchen. Further, the Collector suggested that his own attempts to help affected people had been hindered because the 'ignorance of the villagers stood in the way'. Many of these people, he argued, were unwilling to use allopathic health practices and continued to rely on 'quacks' rather than taking 'expert medical advice'.[28]

Critics of the government argued that the difficulties faced by independent observers in proving that deaths were caused by starvation had allowed the government to bypass criticism by attributing deaths to other causes. When reports of possible starvation deaths are brought to the attention of the Collector, the official response, as specified in the Orissa Relief Code, should be for the latter to send an immediate inquiry, which must include a doctor to report on the cause of death. However, the resulting doctor's reports have tended to indicate only the physical disorder at the time of death. These have not tended to provide further details of factors, such as malnutrition, which may have precipitated this condition.[29] Therefore, it has not been possible to establish independently whether the government's statements regarding the cause of death were indeed accurate.

Child Sale

In connection with allegations of child sale made by the petitioners, the Investigating Officer confirmed that in some cases sale of children had taken place, but argued that this was not an action adopted by parents to generate cash to buy food, as suggested in a number of newspaper articles. In one case a child, Premasila, had been sold by her maternal uncle's son to a motor mechanic for Rs 50 (approximately £1). The investigator concluded that this was a case of exploitation, but not one motivated by hunger:

> Premasila is not a good looking girl and also physically weak. Obviously her maternal uncle's son who works as Rickshaw puller at Raipur exploited her and make (sic) some money by selling her to Jisu Sagar as maid servant. This is clearly a case of exploitation but not a case child sale [*sic*] due to starvation.
>
> (Mishra Commission, 1990, para. 35)

A second case concerned reports that a boy of thirteen or fourteen years old had been sold during a period of drought ten years previously when his father could no longer afford to keep him. In this instance the latter had received Rs 10 and a *banion* (tee-shirt) in exchange. In this case the investigator again concluded that this was not a case of child sale to avoid starvation. Instead, he argued that:

> the reason is obviously for the well being of the child. He was a poor man and also a widower and gave the child to a person who having lost his own son wanted a child for adoption. This is a case of adoption on humanitarian grounds and cannot be considered as a sale of child to avoid starvation (ibid., para. 36)

These conclusions correspond with the findings of my own fieldwork interviews conducted in Kalahandi. These indicate that parents did sometimes sell children to work as maidservants in the homes of more affluent higher-caste families. This was particularly common in Gaud caste (milk-folk) families.[30] However, the reasons for sale were rarely purely economic, founded in a need to generate purchasing power to buy food and other essentials made necessary by their immediate hunger. Nor was this an action intended primarily to improve the survival chances of remaining family or community members, as indicated in reports of child sale in the work of Paul

Greenhough and David Arnold. Instead, parents sold their children into more economically advantaged households, on the grounds that the child was likely to have a better quality of life in his on her new family.

Indeed, instances of child sale have been noted in other societies. Greenhough (1980, 1982) argues that during the Great Bengal Famine of 1943, the sale and abuse of children clearly illustrates the 'internal dismemberment' of families during the crisis (1980, p. 230). He puts forward a number of reasons why families resorted to such action. First, he argues that under the stress that famine placed on families at this time, the powerful cultural ideal of a co-resident sharing family became secondary to a more powerful ideal of family continuity. Such continuity was seen to hinge upon the survival of adult males in the community (1980, pp. 222–3). For this reason the well-being and survival of women and children was relegated in importance relative to that of adult men. Greenhough points out that such action violates strongly developed cultural values dictating that patrons and masters should provide for the well-being of their dependants. However, he suggests that:

> on the other hand such abandonment helped the very persons admitted to be capable of maintaining key village and domestic institutions to survive. The paradox of victimisation is that immoral forms of conduct conduced ultimately to moral ends – the reconstruction of the family and the village economy after the crisis has passed. (1980, p. 234)

Greenhough therefore implies that children were abandoned or sold as a survival strategy to better ensure the survival of the household or the community after the crisis. Similarly, Arnold identifies a similar trend which prevailed during famine in the Madras region in 1876–8. He states that:

> from desperation too women and children were sold or gave themselves up to prostitution. In part this was a further aspect of the hierarchy of rural subordination. Men preserved their own chances of survival by sacrificing women and children ... Famine brought not only an intensification of the peasant's struggle for survival, but also enhanced their exploitation by others. (Arnold (1984), p. 97)

Second, Greenhough indicates that families in some instances sold their children in order to relieve themselves of the responsibility of

protecting and nurturing them during periods of hardship. Also, he argues that families acted in this way in order to escape from the 'nearly intolerable clamouring of their children for food'. He therefore infers that it is 'a kind of exasperation or mental exhaustion' that led parents to sell or to otherwise 'do away' with their children (Greenhough (1980), p. 230).

However, child sales in Kalahandi and neighbouring districts cannot generally be explained in terms of survival strategies designed to serve the aims outlined in the work of Greenhough or Arnold. Indeed, the sums received for the sale of a child have often tended to be very low. In 1965 such sales reportedly took place for as little as Rs 5. A much publicised sale of a girl in Ambulpani in 1985 took place with only Rs40 being exchanged. Even during times of shortage these sums would appear to be inadequate to bring a sufficient improvement in the economic condition of the family to compensate parents and other family members for the anguish created by the loss of a child.

In these circumstances it is perhaps plausible that such action may be an attempt to relieve the burden on the rest of the family of having another member to feed and clothe. However, it was emphasised locally that parents were unlikely to sell children except in the most extreme circumstances. For this reason it is more probably a concern to provide the child with a better chance of survival, and a more satisfactory standard of living, that motivated the parents to sell their child into a wealthier family.[31]

Overall Performance of Government Relief and Development Programmes

In his overall assessment of the effectiveness of government interventions, the Investigating Officer was highly critical of the Administration for its lack of preparedness in managing relief measures and its poor awareness of the level of distress prevailing in the district. Indeed, he states that:

> the Government both Centre and State have (sic) remained apathetic to the calamity following droughts and no steps are being taken to alleviate the misery of the suffering people to provide employment and to stop the exodus and rehabilitate the migrating villagers. (Mishra Commission, 1990, para. 53)

In addition, he argued that until 1988 the Authorities were 'unmindful of the problem', and only when it was brought to their attention by a locally-based voluntary organisation, AWARE, did they initiate measures to assist the vulnerable population (Mishra Commission (1990), para. 106).[32] He also drew attention to large sums from government schemes that have been misused or embezzled through extensive corruption, suggesting that these leakages reduced the efficacy of state interventions markedly.

Final Ruling of the Orissa High Court

On the basis of the findings of the Mishra Commission, the Orissa High Court published its final report in February 1992. This confirmed the findings of the Mishra Commission, that five starvation deaths had taken place in Kalahandi. It also expressed shock at the state government's failure to prevent the sale of Premasila, a young Bolangir woman.

Further, in what has been described as a 'landmark judgement' in sections of the press, the Division Bench ordered the state government to pay compensation to the bereaved families of the starvation death victims. The Bench observed that because all the victims were from the 'lower stratum of society' and were contributing to the maintenance of their respective families, then the Orissa Government should pay Rs 25 000 (£540) each to four of these families, and Rs 40 000 (£865) in compensation to the remaining family of Bondiki Sabar and Parbati Sabar, a married couple. The High Court also ordered the state government to pay Rs 5000 (£110) to cover the expenses of Sri A. C. Pradhan, the Cuttack advocate who had filed one of the petitions to the Orissa High Court.[33] The award of compensation to families of people who have died from starvation was unprecedented in an Indian court.

Further, in drawing attention to the failure of the state government to fulfil its responsibilities to promote effective measures to combat hunger and poverty, the Court dismissed its claims to have spent Rs 14 196.21 crore (£3073 million)[34] on poverty alleviation. While the government stated that this had benefited 197 468 people and had raised more than 50 per cent of the district's population above the poverty line,[35] the High Court declared these figures to be 'fantastic ie. not based on reality'.[36]

Finally, the Bench severely criticised the District Collector of Kalahandi at this time, Sri Aurobinda Behera, for neglecting his respons-

ibility to provide assistance to the vulnerable during times of crisis. Firstly, it highlighted his failure to act in response to a report that a starvation death had occurred in his district.[37] Under Section 39 of the Orissa Relief Code, the Collector is obliged to order an immediate inquiry by a gazetted officer if reports of starvation deaths in the press come to his notice. However, the Investigating Officer reports that the District Collector failed to fulfil his responsibility to initiate such an inquiry:

> Despite such alarming report, the Collector did nothing to ameliorate the distress in the village. Using a little discretion, he should have visited the village and reported the matter to Government on the analogy of Rule 39. (Mishra Commission, 1990, para. 52)

The Bench also indicted the Collector for failing, as required under Chapter 10 of the Orissa Relief Code, to act as the 'temporary guardian' of orphaned children until they were found a place in an orphanage or in other suitable care. It argued that, had the Collector made an effort to visit the distressed villages, he would have been aware of the orphaned children of two of the dead people, Bondiki and Parbati. However, the Mishra Commission ruled that in failing to make necessary arrangements to look after these children, he had 'failed in his duties' and argued that 'the Government is vicariously responsible for his apathy and inaction' (ibid., para. 52).[38]

CONCLUSION

This chapter has argued that democratic institutions and processes have a important role to play in India, and in other states, in efforts to combat hunger and poverty. In particular, it has highlighted the importance of the nexus between a free press, a multi-party system of electoral politics, and an independent judiciary, in drawing attention to distress and in motivating governments to act in response to this problem. Indeed, it may be assumed that few governments are willing to risk losing electoral support by being seen in the eyes of the voting public to be neglecting their responsibility to provide assistance to the vulnerable.

However, it also argues that it is important not to overestimate the *de facto* security which this process provides in practice to the vulnerable. While this democratic framework appears on paper to hold

enormous potential for promoting food security, this does not in reality always translate into effective action to promote this goal.

Indeed, legal action taken against the Government of Orissa in the Orissa High Court resulted in severe criticisms of the state's administrative failures by the investigator, and generated a range of constructive policy recommendations designed to improve its capacity to combat hunger and poverty. However, there is little evidence that these recommendations were ever acted upon by the government, or given priority attention as requested by the Court. As a result, a wide range of problems identified in this report were found to be still in evidence during the period of my own fieldwork in Kalahandi two years later.

A significant consequence of the widespread publicity given to the alleged negligence of J. B. Patnaik's Congress (I) Government was that this almost certainly contributed to its electoral defeat in the 1990 Legislative Assembly elections. However, this change of government had a minimal impact in terms of producing long-term improvements in food security in the state. Despite its rhetoric while in opposition, Biju Patnaik's Janata Dal demonstrated little commitment to acting on the recommendations of the Orissa High Court when elected to power. Instead, the latter passed off many of the problems highlighted by the court inquiry as failures of the previous administration, and used these findings principally as a tool to discredit the previous government rather than as a means to combat hunger in the state.

This study has identified that adequate legislation already exists in Orissa to prevent exploitation of the poor, if effectively implemented. However, the failure of government officers to apply these regulations has meant that, in practice, these have afforded little protection to the vulnerable. The inability of people from this section of the population to pay for their own legal representation has meant that security provided by the law has generally bypassed the poorer sections.

Further, it has also demonstrated that whilst the Orissa High Court has powers to force the government to implement its rulings, it is necessary to ensure that these powers are more strictly enforced if legal action is to have a significant effect in eliminating food insecurity within the district. Indeed, in the Kalahandi context, these powers of judicial review have been too weak in practice to do much more than attribute blame and make recommendations. Consequently, unless the law courts have more substantial powers of enforcement, legal action of this form may be little more than a substitute for effective action to combat poverty and hunger rather than a motivator of it.

Indeed, perhaps the most important contribution of legal action taken against the Government of Orissa was to broaden public awareness throughout India of the distress prevailing in the district and the government's failure to initiate an effective response. This would lend support to Gandhi's statement, made almost ninety years ago, that petitions serve an important role in educating the public and in providing a 'warning' to the rulers. However, this chapter suggests that in the absence of more effective means to ensure that the rulers act on the content of these petitions, Gandhi's original claim may remain sadly apposite: 'It is beyond dispute that a petition without the backing of force is useless' (Gandhi, *Critique of Modern Civilisation* 1909).

Notes

1. Published in R. Mukherjee (ed.) (1991) *The Penguin Gandhi Reader* (Harmondsworth: Penguin), p. 45.
2. The 'Washington consensus' (or the 'view from Washington') commonly describes the current development policies of the Bretton Woods institutions (notably the International Monetary Fund (IMF) and the World Bank) and the United States government. See further in Lancaster (1993).
3. This chapter addresses the issue of food security in terms of the access that people have to food, or more generally the nature of what Sen has termed a person's food 'entitlement' (Sen, (1981), p. 1); also in terms of access to a wider set of resources and facilities which include education, health services, transport and marketing facilities. The latter have been termed 'intermediate needs' by Doyal and Gough (1991) or a person's 'capability' by Drèze and Sen (1989, 1991).
4. This was the case, for example, during the Bengal Famine of 1943, and the Chinese Famine of 1958–60. In both these cases it has been argued that these famines took place in spite of the existence of a relief and redistribution system that would have been adequate to prevent extensive loss of life if it had been implemented rigorously by the government concerned. See further, for example, in Drèze and Sen (1991).
5. This issue is discussed further in Appadurai (1984); Drèze and Sen (1989, 1991); Currie (1992).
6. Severe famines have taken place, for example, in Ethiopia, Sudan, Somalia and Mozambique in recent years, often precipitated by severe disruption caused by war.
7. Despite a poor record in eliminating long-term chronic hunger, Drèze (1988), for example, has maintained that India has not experienced severe mortality during a period of famine since Independence in 1947.
8. See further, for example, in Swift (1993); Drèze (1988); Drèze and Sen (1989, 1991); Currie (1995).

9. Appadurai has used the term 'enfranchisement' to describe this set of ideas. By this he means the degree to which an individual or group is able legitimately to participate in the decisions of a given society about entitlement (1984, p. 481).
10. For a useful study of the relationship between democratic decentralisation and institutional performance in promoting locally-orientated development policies in a comparative context, refer to Crook and Manor (1995).
11. Conditions for borrowing tend to vary widely in Kalahandi. During fieldwork conducted for this study between January and August 1992, villagers interviewed in Chindaguda near Khariar suggested that, in return for a loan of Rs100 taken before the harvest they were expected to repay a bag of rice, worth Rs240. In Upper Chabri in Thuamur Rampur block, villagers reported that they were required to pay 100% interest on loans taken out from a local *sahukar* (moneylender). In contrast, villagers in the Kashipur region suggested that they were paying 50 per cent interest on current loans.
12. These merchants are charged with buying grain on behalf of the Food Corporation of India at prices fixed by the government. This grain is then sold through fair price shops at subsidised rates under the Public Distribution Scheme.
13. Fieldwork interviews in Kalahandi revealed a range of different arrangements under which loans are made against land mortgage, or *jami bandhak* as it is known locally: (a) *bandha* – mortgage of land and labour; (b) *kalantaria* – mortgage of land for money repaid with compound interest; (c) *bandha saheji* – mortgage of land with the moneylender and the mortgager each taking a fixed share of the paddy cultivated on this land; and (d) *katti* – mortgage of land for a fixed time and a fixed sum. When the fixed period of mortgage is completed the amount advanced by the moneylender lapses and is not returned by the borrower.
14. Fieldwork interviews in Kalahandi similarly indicated a range of different arrangements under which loans are made against the borrower's labour. These include: (a) *goti* – free agricultural service to the village headman (*Gountia*); (b) *halia* – annual agricultural labour in the lender's house; (c) *bahabandha* – mortgage of hand labour against an advance in cash; (d) *kalibhuti* – purchase of labour by the lender giving a certain price before reaping paddy, and collecting double this rate in the form of labour service during harvest time; and (e) *thika* – another form of contract labour.
15. Writ Petition (Civil) Nos. 1081 of 1987.
16. 1989 Supp (1) Supreme Court Cases 258, para. 3.
17. *Indian Express* (Vizag. edn), 8 July 1987.
18. Ibid.
19. Critics of the Chief Minister suggested that the initial delay in the launch of the inquiry was caused by obstruction by the state government. They argued that the Chief Minister, J. B. Patnaik, had considered the appointment of an Inquiry Commission by the Supreme Court to be a personal rebuff on the grounds that he had maintained consistently that

there was nothing abnormal about conditions in Kalahandi at that time *Indian Express* (Vizag. edn), 8 July 1987.

20. This was a sentiment shared by a number of other government officials interviewed during the course of fieldwork for this project. One Revenue Inspector, for example, stated that: 'people in the area are largely responsible for their own condition. They feel that drought is inevitable and so do nothing to improve their situation – they just sit and wait for drought to arrive' (Name provided, interviewed Sinapali, March 1992).
21. Sri Kapil Tiwari, interviewed Khariar, February 1992.
22. Indeed, the Orissa Relief Code argues that the aim of relief should be 'not only to ensure that no one should die of starvation but also to prevent physical deterioration and destitution of the people and to enable them to resume their ordinary pursuits of life on return of better times and simultaneously to encourage the village community in making concerted and continuous efforts to fight a common misfortune. Boosting the morale of the public in times of disasters is very much necessary and is, therefore, an important objective of the relief operations. The approach to relief in the present context has to be both preventative as well as maintenance of a common standard of economic health of the people' [*sic*] (Government of Orissa (1980), para. 5).
23. Original Jurisdiction Case No. 3517/88.
24. This article further argued that government officers were not only negligent in failing to prevent moneylending, but also assisted the *Mahajans* by failing to react to complaints made against them, and even by harassing *adivasis* on their behalf (Mishra Commission (1990), para. 2).
25. Original Jurisdiction Case No. 525/89.
26. Orissa High Court (1992, para. 4).
27. These people were Pamuli Sabar, who died on 10 February 1989; Musila Sabar who died on 14 February 1989; Parbati Sabar who died on 14 February 1989; and her husband Bandaki Sabar, who also died on 14 February 1989 (Mishra Commission (1990), para. 40).
28. *Statesman* (New Delhi), 29 March 1987.
29. In Kalahandi a number of deaths were also linked to people having consumed poisonous berries and roots because of a lack of alternative foodstuffs available to them. However, in the absence of detailed quantitative and qualitative data relating to the nutritional intake of the deceased person prior to death, it has been difficult to establish with certainty that the cause of death could be attributed to nutritional deficiencies.
30. Indeed, evidence of this activity is far more prevalent amongst the Gaud caste, which is not a scheduled caste, than among *harijan* families, whose daughters would not be accepted to work in higher-caste households. Brahmin and higher-caste families would generally accept all food and water from girls of *Gaud* origin apart from water rice (*pokhal*).
31. Indeed, although children were frequently sold into families about which they knew nothing beforehand, it was expected that the new family would ensure that the child was adequately fed and clothed. In the case of a girl, the new parents would also be expected to take care of her

marriage expenses. In many instances these are costs that a poor family would struggle to bear.

32. Indeed, the investigator argues that 'obviously the District Administration was in stupor'. He further maintains that it did not take such action on 'being inspired by sense of duty', but only when pressured by outside agencies such as AWARE and the Orissa Legal Aid Board, which was chaired by a High Court Judge (Mishra Commission (1990), para. 14).
33. *Samaja* (Cuttack), 15 February 1992, 'The Starvation Deaths in Kalahandi are True: Court Order to the Government to Pay Compensation'; *Sambad*, 16 February 1992, 'The Starvation Death in Kalahandi is True: Government Instructed to Pay Compensation'; *Statesman* (Calcutta) 15 February 1992, 'Orissa Court Confirms Kalahandi Deaths'.
34. These rupee to dollar conversions are calculated according to an exchange rate of Rs 46.19 = £1 given by the State Bank of India on 3 February 1992.
35. Although it does not specify which poverty line this refers to.
36. *Sambad* 16 February 1992 (see Nt. 33 above).
37. However, the Collector himself suggested when I interviewed him that he had not in fact been present in Kalahandi when this report of a potential case of starvation death was sent to the District Headquarters there. Therefore, he suggested that he could not be considered to be fully responsible for failing to act on this report, since full responsibility for administration within the district at this time lay with the Additional District Magistrate (Deputy Collector). The latter assumes full powers of Collector when the latter is away from the district. Remarkably, Sri Behera argued that he was never interviewed by the Investigating Officer during the course of his investigation, and therefore the latter had not been aware of his absence at this time (Aurobinda Behera, former Collector of Kalahandi, interviewed 26 April 1992, Bhubaneswar).
38. Such a conclusion is unprecedented in response to public interest litigation in Orissa, although a similar case has been witnessed in Gujarat. The High Court of Gujarat blamed the state government, and particularly the Director of Relief in the Kutch district, for the death of two labourers from 'starvation'. Both of these men were employed in relief operations but had not been paid their wages for three weeks (K. Chandriah (retired IAS officer) *Indian Express* (Vizag.) 17 March 1992.

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19 The Politics and Governance of Poverty Alleviation Programmes: Is Sub-Saharan Africa Learning from Latin America?

Alan Sverrisson

> And to make sure [Namland] remained... a shining macroeconomic beacon, the Bank corralled other donors to contribute and piled loan after loan on Namland... inventing extra programmes with barbarous acronymic names like PAMPER: the Programme of Action to Maximize People's Economic Returns. It was hard to tell whether these transfusions were rewards or insurance money.
> (from 'The Namland Coup', a satire: George and Sabelli (1994), p. 136).

Given that the World Bank's 'fundamental objective' is the achievement 'of sustainable poverty reduction in the developing world', it is clear that its governance agenda is, at least in theory, framed by this commitment. Similarly, the Bank's poverty alleviation activities predate chronologically its governance-focused programmes. Yet, at the same time, Bank interest in both poverty alleviation and governance can be defined, with apparently equal plausibility, as largely rhetorical devices, perhaps best described as bolt-on extras adopted to save the neoclassical skin of its key policy strategies, centred, in the case of SSA since the 1980s, on structural adjustment programmes (SAPs). Within these SAPs the implementation of both the governance agenda and the inauguration of a series of 'safety net' programmes, has concentrated Bank attention on what it now regards as the key role played by institutions, both public and private, in the development process. Accordingly, a focus on the changing institutional architecture of SAP-related anti-poverty 'safety net' interventions in SSA –

notably the graduation away from supply-based 'social action programmes' towards demand-based 'social funds' – provides useful insights into the evolution, and the politics, of Bank thinking on appropriate mechanisms for pursuing its avowed governance objectives, namely to provide an enabling environment combining encouragement both for private-sector development and for enhanced public-sector effectiveness in programme delivery.

Under Robert S. McNamara, from 1968 to 1981, the Bank's central focus was the eradication of 'absolute poverty'. The moral standing this concern engendered helped the World Bank to grow from a near-backwater institution into what the Bank itself would claim as the world's foremost body concerned with development. Furthermore, the concern with poverty was to lead to a new emphasis on policy-based lending in the form of structural adjustment programmes (SAPs), for it became readily apparent that the previous approach, of supporting individual projects, was having no effect on reducing poverty, and that a macroeconomic policy programme was required, if Bank lending was to have any effect (George and Sabelli, 1994). However, the poor performance of most of those projects, as well as the need for borrowing countries to balance budgets as the debt crisis of the early 1980s approached were equally important factors in the change of emphasis in World Bank lending (Walters, 1994).

Today, the Bank has moved on, but there are a few aspects of the McNamara era that may aid an understanding of the Bank's current concern with poverty alleviation where 'reducing poverty [is] the most important goal of development' (World Bank (1994a); p. 161). There is a similarity in the analysis and definition of poverty: during the McNamara era there was a fixation with numbers, paradoxically combined with a propensity for rather crude quantitative analysis, and little or no real understanding of the political aspects of poverty despite a correspondingly crude analysis of the potential threat of Third-World poverty to Western prosperity. For the Bank itself, concern with poverty allowed the McNamara Bank to claim the moral high ground, as a virtuous institution concerned with the less fortunate, which in turn helped the institution to promote itself (George and Sabelli, 1994). There is a clear parallel today, in the late 1990s, with the World Bank needing to justify itself and its adjustment programmes to critics, from the left and right of the political spectrum, from within the development community (Watkins, 1994) and beyond (Walters, 1994).

Finally, there is a 'fortress mentality' in McNamara's writing prior to his appointment at the World Bank, that in all likelihood persisted

into his tenure at the Bank, whereby global security (or to be cynical, the security of the USA), is threatened by increased poverty in the Third World. McNamara talks of 'a "fortress America" still relatively prosperous, but surrounded by a sea of envious and unfriendly nations' (McNamara (1968), p. 7). Thus the motivation for poverty alleviation is to secure political stability, and the preservation of the status quo. Here too, clear continuities in Bank thinking on poverty alleviation are obvious, although the focus of this chapter is mainly on the equally obvious changes in World Bank approaches, particularly those related to the Bank's evolutionary movement from PAPs of a supply-based nature (or 'social action programmes') towards its current major involvement in demand-based programmes (or 'social funds'). This evolution in Bank thinking is best illustrated through a series of case studies. They serve the additional purpose of illustrating the migration of the PAP agenda from Latin America to Sub-Saharan Africa.

THE EXPERIENCE OF PAPS: LATIN AMERICA

Bolivia: The Emergency Social Fund (ESF)

Bolivia's Emergency Social Fund (ESF) has had a catalytic effect on World Bank-supported PAPs, especially in Latin America and increasingly so in Sub-Saharan Africa. The ESF is of central importance in crystallising the Bank's current thinking and in defining subsequent approaches towards the institutional management of its PAPs. Accordingly, it is appropriate to begin an analysis of ongoing PAPs in Latin America and Africa with the Bolivian model.

It is worth dwelling on the origins of the programme. The Bolivian government launched the New Economic Policy (NEP) in August 1985, with no explicit focus on the social dimensions of adjustment – in line with World Bank policy of the time. Just over a year later a 'crescendo of protests', in particular from laid-off miners led to intensive debate regarding the 'urgent need for *visible* and effective measures' (emphasis added) to combat the social and political costs of the NEP, regarding miners especially. In fact, the chance presence of a British MP helped convince World Bank staff of this 'crucial and immediate' need, as economic reforms would be useless if 'political forces swamped and overturned the government' (Marshall, (1992), pp. 25–6). In November 1986, Fernando Romero, a Bolivian

businessman, was appointed as the ESF executive director and immediately started to design an agency from scratch that combined private-sector efficiency with social concerns. It appears that the personality and vision of Romero was crucial to the ESF getting off the ground, because he was able to secure advance funding for projects despite the fact that his scheme looked to the World Bank staff to be a 'vast, under-designed public works scheme that had unhealthy shades of relief activities in which the Bank's charter prohibited involvement' (Marshall (1992), p. 27). At the same time the critiques of UNICEF (Cornia *et al.*, 1987) were emerging, and whose impact on the Bank's poverty alleviation agenda will be discussed later.

We might draw three lessons from the story of the genesis and emergence of the Bolivian ESF. First, its creation was motivated by political concerns as much as, if not more than, concern for the social welfare of the Bolivian poor while the country adjusted, although the two are inextricably linked. Second, an appropriate policy environment in the donor and international financial community is of vital importance – the ESF would probably have had a far more hostile reception a few years earlier. Finally, the person of Fernando Romero shows that committed, pragmatic and personable people in charge of poverty alleviation programmes may be the key to unlocking the natural scepticism of the donor community to such programmes.

The ESF has excited a lot of debate and received a lot of attention, with supporters pointing out its comparative advantage in terms of the demand-based approach, as well as the programme's efficiency, transparency and rapid results. Meanwhile, critics focused on the programme's temporary nature; its inability to target the poorest; and its institutional position outside of the public sector (Kayizzi-Mugerwa and Levin (1994), p. 6). The ESF was run by a small, well-paid group of individuals who assessed the projects demanded and acted accordingly. Speed was the major strength of the ESF, especially when compared to programmes such as PAMSCAD in Ghana. The most novel aspect of the ESF was that it could act outside of the normal bureaucratic structure, and was thus 'innovative from an administrative point of view' (Kayizzi-Mugerwa and Levin (1994), pp. 6–7).

However, the ESF didn't reach the poorest groups in Bolivia, partly because of the focus on groups affected by adjustment, which may or may not include the very poorest (Kayizzi-Mugerwa and Levin (1994), p. 6). Interestingly enough, Carol Graham also questions the ESF's ability to alleviate poverty on anything other than a temporary basis

or to target the poorest areas and groups, because it *did not* focus on the groups directly affected by adjustment, for example the tin miners (Graham (1994a), p. 311; see also Graham, 1992 and Jorgenson *et al.*, 1992). More damning are the World Bank's own figures which show that 'fewer than half the participants in Bolivia's Emergency Social Fund came from the poorest 40 percent of the population' (World Bank (1991b), pp. 18–19).

It is necessary to recall, however, that the ESF was not a comprehensive answer to Bolivia's social problems, but 'a short-term mechanism to protect the needy', until economic growth resumed (Kayizzi-Mugerwa and Levin (1994), p. 6), and that it managed to distribute US$240m in four years of operation, its projects benefiting over one million poor (Graham, 1992, Graham (1994a), pp. 311–12). Furthermore, the ESF has had a considerable positive political impact. First, the unprecedented collaboration between NGOs and the poor meant that ESF could reach the poor in the remotest communities, and by granting funds independently of central government, the ESF was able to enhance local government capacity. In addition, the ESF was able to work in a transparent and non-partisan manner with local governments and NGOs of differing political bents, in a country where aid programmes were usually influenced by patronage politics (Graham, 1992).

The demand-based structure of the ESF meant that it could not be monopolised at election time by politicians, and thus there was no correlation between ESF and election results in 1992 and 1994 – yet Graham makes this point alongside the assertion that ESF had a 'substantial impact on the political sustainability of economic reform' (Graham (1994a), p. 312). Logically, this points towards a contradiction in the political effects of PAPs, which also pertains to most PAPs implemented under structural adjustment.

Mexico: PRONASOL

At first glance, Mexico's Programme of National Solidarity (PRONASOL) would appear to be susceptible to problems similar to Peru's PAIT (see below). However, Carol Graham points out that PRONASOL is based on demand, allowing for autonomous pressure from below (Graham (1994a), pp. 317–18); and while the structure of PRONASOL does not prevent political manipulation, it can allow local power structures to act as countervailing structures to the central party (Craig, 1992).

Nevertheless, PRONASOL appears as an explicitly politicised anti-poverty programme. Mexico's ruling Institutional Revolutionary Party (PRI) has recently been subject to speculation about its future (Craske (1995), pp. 1079–80), and there has been speculation as to whether PRONASOL is intended to replace PRI, or reform it (Fox, 1994; Cornelius *et al.*, 1994). The PRI improved its electoral performance in the 1994 presidential elections, and we should not discount the role PRONASOL may have had in achieving that result. Thus we have an example of a PAP being used to maintain political power (Dresser, 1991; Craske (1995), pp. 1079–80). Certainly, former President Salinas used the programme to consolidate himself in power (Graham (1994a), pp. 320–2), and PRONASOL has remained a significant feature on the Mexican political scene since the change of president in 1995.

PRONASOL grew out of Salinas's thinking (Grayson, 1991) as well as the experience of previous programmes such as Manos de Obra and COPLAMAR, both of which relied on community initiative in the form of manual labour (Dresser (1991), p. 15). The Solidarity programme was also highly visible: it assumed high status in political iconography, the Solidarity logo being visible nationwide, even more so than PRI (Dresser (1991), p. 1); it was, for example, highly prominent in Salinas's 1992 address to the nation. Thus PRONASOL can be seen to have had a greater political impact than Bolivia's ESF (Graham (1994a), pp. 321–2).

According to Carol Graham, PRONASOL shares important characteristics with other PAPs implemented under SAP in Latin America and Sub-Saharan Africa. First, there is the concept of incorporating the demands of beneficiaries into programme design and content, as first introduced in the Bolivian ESF, seen as a powerful tool for poverty alleviation and institutional development at local level (Graham (1994a), p. 310). As well as drawing heavily on Latin-American experience, PRONASOL has been affected profoundly by its political environment and economic context, namely the semi-authoritarian political system that is (in theory) in the process of liberalisation, and an adjusting economy, recovering from severe crisis, external debt and macroeconomic distortions (Graham (1994a), pp. 309–10).

The underlying assumption is that, without economic adjustment, poverty would be far worse (Graham (1994), p. 309) – we shall see below an account of a PAP within a 'heterodox' economic strategy in Peru. Under SAP, the Mexican government was faced with difficult choices concerning public expenditure, 'with the social sectors suffer-

ing disproportionately – and mistakenly – in the reduction in size and scope of the state sector' (Graham (1994a), p. 310). Concern over the social costs of adjustment increased in the 1980s, while resources decreased, with major effects on social policy in Latin America, Eastern Europe and Africa. Government spending focused away from large-scale projects and towards universal provision of basics and targeting the neediest (Graham (1994a), p. 310).

Mexico is cited as a middle-income country where finely targeted programmes will have the most effect, and the states of Chiapas, Guerrero, Hidalgo and Oaxaca were highlighted as regions that could benefit from this. What, then, is the significance of the Zapatista revolt? The scene of the revolt, the state of Chiapas, had been a showcase for PRONASOL; more government and World Bank money had been channelled into Chiapas than into any other state, but the main problems were political; authoritarian and corrupt structures were left untouched, and even strengthened by PRONASOL (Castañeda 1994; Birns and Nagel, 1994). Since the 1980s, many small-holding farmers (*ejidatarios*) and rural Indian communities were expelled from or had had to leave their land, often to places beyond the scope of state resources and infrastructure. After the revolt started, the government attempted various conciliatory measures, but 'all the mechanisms used by the government to integrate the peasants... had become a bitter joke to the region's inhabitants' (Brach, 1994). The question remains: will the revolt result in an influx of funds to Chiapas? If so, it looks as though PRONASOL is a programme that can easily become the victim of political expediency. Moreover, it seems to echo Robert McNamara's own assertion that the way to combat revolutionary movements in the Third World was his programme of poverty alleviation (McNamara (1968), pp. 29–30).

Chile

Chile presents a very different example and model. Chile had had an extensive social welfare programme before adjustment; under President Pinochet this system was revamped and targeted towards the poorest. Social spending declined per capita during adjustment, but increased for the two poorest deciles, and although people at the margins still lost out, resulting in some political fallout, the Chilean government did protect the poorest during the economic crisis – for example, the rate of infant mortality declined, and increased its rate of

decline (Chile now has one of the lowest infant mortality rates in Latin America) (Graham (1994a), p. 316; 1994b).

The Pinochet Government used employment programmes to try to alleviate poverty between 1975 and 1987. In 1982, the height of the economic crisis, with 30 per cent unemployment, these programmes employed 13 per cent of the workforce, and paid a quarter to a half of the minimum wage, a level that functioned as a self-targeting mechanism. The question remains: was this subsidy too low? In addition, the initially haphazard implementation and unproductive use of labour gave the programmes a tainted image. Later, the design of the programmes was improved, incorporating private-sector training and hiring. Often workers managed to find permanent jobs in the same firms, which had some effect on alleviating poverty. There were flaws, resulting from the programmes' authoritarian imposition, but the they did reduce the potential for social explosion at a time of crisis. Demand-based programmes could not achieve the scale, coverage and speed of the Chilean programmes, especially regarding resources available per capita (Graham (1994a), pp. 316–7; 1994b).

Pinochet's protection for the poorest is an example worth noting, as Chile has a comparatively excellent record on protecting the basic health and welfare services to the poor during Adjustment, but income distribution and per capita consumption is less good. The Aylwin Government made poverty reduction a major focus of its economic programme, and introduced a new demand-based social fund: the Fund for Solidarity and Social Investment (FOSIS), which complements the work of line ministries (Glaessner *et al.*, (1994), pp. 58–60). FOSIS sought to correct a flaw in Pinochet's approach, namely the lack of beneficiary participation. Under Pinochet, the authoritarian nature of the government limited positive political effects and sustainability of the poverty alleviation initiatives; for example, when jobs were withdrawn from shanty-towns that had been active in political protest. In addition, because targeting entails both political and economic choices, Pinochet's freedom from democratic constraints meant that fewer clear-cut lessons on political sustainability could be drawn (Graham (1994a), p. 317; 1994b).

The Chilean case points to two important questions for the cross-country comparison of PAPs. First, how easy would it be to replicate the targeting of the poorest at the expense of the middle-income sectors, in a more open political system? Second, similar authoritarian tendencies can be found elsewhere – for example, in parts of the

Mexican political system – and hence they can be found in PRONASOL (Dresser, 1991).

Peru: PAIT

Carol Graham uses the Peruvian example to make the point that 'programmes designed to protect or benefit the poor, if poorly implemented, can do more harm than good' (Graham (1994a), p. 317). For example, they can alienate their potential beneficiaries, like the Programa de Apoyo al Ingreso Temporal (PAIT), a public works programme modelled on Chile's programmes, implemented in Lima's shanty-towns by Alan García's APRA Government (1985–90). PAIT was designed to provide income support and socially useful infrastructure. However, it was implemented top-down, in a partisan way, suffering from clientelism and the constant political manipulation of workers – being bussed to rallies to cheer for García, for example. The PAIT budget was manipulated; being increased before elections, whereafter jobs faded out, creating uncertainty for applicants. PAIT was perceived as an APRA tool, and its centralism and top-down implementation in effect disrupted, duplicated and otherwise undermined the efforts of local self-help groups, thereby disrupting the capacity-building that is central to poverty alleviation. These effects were permanent, in contrast to the marginal and temporary effects that PAIT had on poverty reduction (Graham, 1991; Graham, 1994a, pp. 317–18).

SUB-SAHARAN AFRICA

Ghana: PAMSCAD

Ghana's Programme of Actions to Mitigate the Social Costs of Adjustment (PAMSCAD) was embarked on in 1987, and the project began in late 1988. PAMSCAD focused on direct victims of Ghana's SAP and the structural poor, namely poor farmers, low-income urban unemployed and retrenched workers from public and private sectors. The erratic flow of donor funds meant that many projects did not take off. Many of these projects depended on multi-donor collaboration, with complex procedures, local bottlenecks and administrative limitations undermining their success. Low organisational capacity meant that areas for intervention had to be located at the centre, instead of in

rural areas (Kayizzi-Mugerwa and Levin (1994), p. 7). In fact, of the US$84m allocated to PAMSCAD (approximately 7 per cent of all adjustment aid given to Ghana), two-thirds of funds went to urban areas, $22m went to those groups who had been pushed into poverty by SAP (Stewart (1991), p. 1859), and $10m was earmarked for retrenched civil servants (Gibbon (1992), p. 203). Meanwhile, only 3 per cent of PAMSCAD funding went to the north, the poorest region (Stewart (1991), p. 1859).

The experience of PAMSCAD taught the following lessons: first, that emergency PAPs need to be drawn into the core of the regular development programme (World Bank, 1988; (Kayizzi-Mugerwa and Levin (1994), p. 7); and second, that greater donor flexibility is required. Finally, and most importantly, the failure to include the poorest groups in the emergency relief programme must be considered a policy failure and would eventually undermine the whole poverty alleviation effort (Kayizzi-Mugerwa and Levin (1994), p. 7).

Senegal: From DIRE to AGETIP

Carol Graham contrasts Senegal with Zambia, in terms of the degree of political opening in particular, and the impact this has had on sustaining adjustment, reaching the poor and institutional capacity building (Graham (1994a), p. 313).

Senegal suffers from limited democracy and has been slow to adjust. The first attempt to compensate SAP losers was the Délégation à l'Insertion à la Réinsertion et l' Emploi (DIRE), funded by USAID, the World Bank, and the Senegalese government. DIRE gave sacked civil servants and graduates who would otherwise have got civil service jobs credits of up to $50 000 to start their own businesses. DIRE suffered from a lack of training and follow-up, and clientelism in loan distribution. In addition, repayment levels were low, and most of the enterprises created with DIRE funds were short-lived. DIRE was administered through the public treasury, and about $3 million was 'filtered' in the process, while the beneficiaries of the DIRE programme were relatively privileged groups. In short, the programme squandered a lot of resources (for what is a poor country) on those who needed least protection from the adjustment measures being introduced (Graham (1994a), p. 313; 1994b).

The next attempt to alleviate poverty in Senegal was set up following civil unrest in Dakar in 1988. Founded in conjunction with the World Bank and influenced by the success of the Bolivian ESF,

l'Agence d'Exécution des Travaux d'Intérêt Public (AGETIP) was set up as an independent agency with a director recruited from the private sector, and responded to to proposals for labour-intensive infrastructure projects (Graham (1994a) p. 313; 1994b). AGETIP was successful in terms of its efficiency and the number of projects it founded: from 1990 to the end of 1991, 100 projects had been created, along with 11 000 temporary jobs. AGETIP has even been cited as a model for reforming the public sector (Graham (1994a), p. 313), and its institutions are so successful that neighbouring Chad is looking at contracting some of its needs to AGETIP organisations (World Bank (1993b), p. 155).

In terms of poverty alleviation, AGETIP has had a mixed record, however: it has created many temporary jobs and renewed infrastructure; but the limited scope for beneficiary participation in the programme has limited its potential in terms of capacity building and sustainability. Essentially, AGETIP's poverty alleviation efforts have been subordinate to the interests of politically vocal groups, and the slow pace of political reform has allowed these groups to use AGETIP to protect their privilege. The popular suspicion of AGETIP in Senegal results from limited participation (Graham, 1994b). This is in sharp contrast to Bolivia's ESF, which worked with a variety of parties and NGOs among those groups traditionally marginalised from state benefits (Graham (1994a), p. 314).

Furthermore, AGETIP has been influenced profoundly by its political context. There has been no internal debate within the programme or the government about reaching the poorest or most needy groups in Senegal, and poverty criteria were not used when drafting the programme. There have been no co-operative relationships between the government and the NGOs, who are the only organisations with extensive links to the poor in Senegal. Finally, AGETIP itself is structured so that funding proposals are only accepted from heads of local government. The opposition boycott of the 1990 municipal elections has meant that funding proposals come only from mayors belonging to the ruling party (Graham (1994a), p. 314; 1994b).

Zambia

In its Economic Recovery Programme (ERP), the Zambian government devised a four-part strategy against the 'short-term problems' caused by the ERP. First, the government was working with donors 'to devise ways of using food aid in the most efficient way to lower the

cost of maize meal to the poor, perhaps by offering a blended yellow maize at a lower cost'. Second, 'a substantial amount (K1 billion) of the savings from the abandoned maize subsidy is being channelled through the Ministry of Community Development and Social Welfare for welfare programmes for the poorest of the poor'. This was to be implemented by local governments and NGO groups in the poorest areas of Zambia. In addition, the Social Action Programme was to be continued, providing 'funding for small scale social development activities through the Provincial Permanent Secretaries' (Zambia (1992), para. 76). Finally, the Zambian government, with World Bank assistance, is implementing a programme of small-scale, community-based, labour-intensive works programmes, to be carried out by the Microprojects Programme in the Office of the President, funded through the Social Recovery Fund, with donor support being sought (Zambia (1992), para. 77).

Before 1991, under Kenneth Kaunda's UNIP government, the Structural Adjustment programme was postponed, and in general, economic benefits were linked to party membership. After its victory in the 1991 elections, the MMD government began to implement free-market reforms, and made reaching the poorest and most vulnerable a public priority. Traditional privilege was reduced due to the dramatic nature of this political change, allowing the new government to focus its attention on the poorest (Graham (1994a), p. 315; 1994b). Graham cites the maize meal policy as an example of the changing political climate bringing about positive political impacts on adjustment and the poor. Under Kaunda maize was heavily subsidised, a subsidy that consumed over 15 per cent of government revenue. Kaunda's attempts to raise the prices resulted in riots and a 1990 coup attempt. Kaunda had introduced a coupon system, intended to provide cheap maize meal to the poor, but because it was used as a UNIP tool, the poor were marginalised and had to pay black market prices. After coming to power, Chiluba's government liberalised prices in December 1991, but kept the subsidies on the roller meal (eaten by the poorest), and no popular unrest ensued, because the government explained the measures, and because the previously entrenched interests had less influence (Graham (1994a), p. 315; 1994b).

However, Graham's promotion of the Zambian reform programme does not appear to be consistent with news reports emerging from Zambia. It is readily apparent that Zambian economic reforms had an adverse effect on poverty: the local Oxfam–UK director has, for example collected more than 15 000 letters from villagers describing

the impact the SAP has had on their lives (MacDonald, 1993); meanwhile, a joint report by the Catholic Secretariat, the Jesuit Centre for Theological Reflection (JCTR) and the British organisation, Oxfam, criticises the government for 'paying little attention to the impact of reforms on vulnerable groups' (Chitendwe, 1994b). The Kenyan President, Daniel arap Moi, has called the reforms 'unworkable' for the same reason (Chitendwe, 1994b). Even the World Bank, while commending Zambia's reconstruction efforts, has suggested that the government should ease up on some aspects of the programme that are seriously affecting health and education services (Fonseka, 1995). Meanwhile, it appears that the social service delivery has, in fact, been poor: Freda Luhila, co-ordinator of World Food Programme's Programme Against Malnutrition (PAM) says that suffering has increased 'due to the SAP and the poor delivery of services in the social sector' (MacDonald, 1993). This view is echoed by a Zambian MP (MacDonald, 1993) and deputy minister in charge of social security, who admits that 'the government should have first put up some form of social security before embarking on SAP' (Geloo, 1993).

Furthermore, we can question the assertion that the Zambian poverty alleviation programmes have been more successful than other PAPs because of the high degree of political openness, liberalisation, accountability and transparency introduced into the Zambian system after the 1991 transition, as well as the Chiluba government's high degree of popular legitimacy. With regard to the latter point, it is doubtful whether the vast majority of Zambian voters who voted for the MMD were fully aware of the effects that MMD economic policy would have on their livelihoods (Ham, 1993). In 1994, aid to Zambia was frozen briefly, because while donors were impressed with the Chiluba administration's radical macroeconomic reforms, they identified major shortfalls on the political front (Ham, 1994). Most damning of all was Vice-President Levy Mwanawasa's verdict, after resigning from the cabinet in July 1994, when he said that transparency and accountability in government had been lacking since the MMD took office (Chitendwe, 1994a).

Carol Graham cites Zambia's Micro-Projects Unit (MPU), funded by the World Bank and the EU, as a good example of a programme that reaches the needy instead of the privileged. The MPU has been expanded under Chiluba, and has been influenced by Bolivia's ESF, in that it responds to proposals from community organisations, mainly for renovation of existing infrastructure (proposals have to go through local government and the MPU simultaneously – this

prevents lags in bureaucracy and duplication (Graham (1994a), p. 315)). The MPU requires a community contribution of 25 per cent, either in cash or as labour, has revitalised the self-help spirit and reached remote communities long neglected by the state. The MPU has created a basis of support for economic reform among marginalised but numerically significant groups, and the demand-based nature of the programme has encouraged political 'voice', by focusing on alternatives to monopoly parties among the poor, as well as community initiatives and self-help (Graham (1994a), pp. 315–6; 1994b).

However, it is difficult to see how projects such as the MPU can have anything but a marginal effect on Zambian poverty. A recent report states that 'of Zambia's 8.5 million people, a mere 300,000 are formally employed', adding that the Central Statistics Office says that about 6.5 million people live below the poverty datum line (Kunda, 1995). It appears from the same report that the self-help spirit aroused by SAP is more akin to desperation. Many Zambians are forced to resort to petty trading to feed themselves and their families (Geloo, 1993); and, for many, sending children out to work becomes the only option (Kunda, 1995). Rather than awakening a spirit of enterprise, SAP has left many of Zambia's underprivileged in profound despair at their future (Kunda, 1995).

Uganda: PAPSCA

Uganda's Programme to Alleviate Poverty and the Social Costs of Adjustment (PAPSCA) was initiated in financial year 1988/9 as a part of the Rehabilitation and Development Plan (RDP), although it was not in fact launched until 1990. Despite initially favourable mentions in World Bank literature, citing it as a good example of a suitable anti-poverty approach (World Bank (1993b), p. 155), the lack of thorough documentation of the impact of SAP on various groups meant that targeting and identification of the poor and vulnerable was unsatisfactory. Furthermore, the combination of the organisational aspects of social funds and social action programmes, as well as the fact that PAPSCA would have appeared to be a vehicle for obtaining additional funding for financially distressed ministries, has meant that:

> Typically the 'poverty alleviation project list' was dominated by projects 'sponsored' by the government's line ministries, the attraction being the expectation of massive donor support to the PAPSCA effort. (Okune, 1992)

This compares unfavourably with the demand-based ideal. Similarly, despite heavy and highly visible NGO involvement in PAPSCA implementation, the overall administration of the programme means that it is mostly PAPSCA managers who select NGOs, which in turn run the programmes (Uganda, 1989; Okune, 1993). This has led to a gigantic co-ordination problem and a general lack of success stories (Kayizzi-Mugerwa and Levin (1994), pp. 7–8).

PAPSCA is not well regarded in the development community, and among donors especially. Without losing sight of the many limitations of the programme, which resulted in the programme being placed on hold in 1992, the low regard in which PAPSCA is held is perhaps less to do with its drawbacks as a programme to alleviate poverty than an insufficient understanding of the politics of such a programme. Expectations for such a programme were far too high. PAPSCA should really have been viewed as an experiment, but it was seen as a panacea for all ills, or a 'bribe' to placate a population who would lose out through adjustment. The need for programme visibility contrasted with the needs of implementing NGOs to encourage relationships that could be built on constructively. Ultimately, the low regard for PAPSCA in Ugandan government and donor circles has meant that many of the important lessons that could have been learnt have been ignored, and that the lack of political considerations in programme design and implementation that caused such problems for PAPSCA is again a feature of a new generation of Uganda poverty alleviation programmes.

THE ORIGINS OF THE POVERTY ALLEVIATION AND GOVERNANCE AGENDAS

Structural Adjustment in Sub-Saharan Africa has not brought about the expected dividends, and it could be argued that the World Bank's SAP project has failed, at least in terms of the inability to produce significant growth anywhere on the continent. The fact that Ghana, the World Bank's best African adjuster, will not grow enough to significantly reduce poverty for another fifty years (World Bank, 1994a), combined with the fact that these estimates are based on what now look to be optimistic projections of Ghana's growth (Adams, 1995), leaves the project looking very precarious indeed. Accepting the World Bank's argument that poverty reduction cannot occur without growth (Harsch, 1994), the prospects for reducing poverty in Africa

look slim. Added to this is the widespread opposition in the development community towards increased and increasing poverty under SAP, because there is strong evidence that Structural Adjustment has increased both the depth and incidence of poverty (Watkins, 1994; Christian Aid, 1995). How should the World Bank respond? I believe that the recent emphases on poverty alleviation and governance in the World Bank are, in part, two different responses to this crisis, and are thus linked.

There remains the question of whether increased poverty during the SAP period is in fact a direct product of Structural Adjustment, or a residual effect of the economic crises that necessitated economic reform. The World Bank attempted to separate the two (World Bank, 1994a; Husain and Faruqee, 1994), and have blamed the failure to make this distinction for some of the unfavourable views about the effects of SAP (Kayizzi-Mugerwa and Levin (1994), p. 3). While this may seem to be a device to help shift the blame elsewhere, the distinction is an important one to make in the context of poverty alleviation programmes within SAPs. The initial poverty assessments make distinctions between 'old' and 'new' poor, for example, and Carol Graham's work on the politics of PAPs makes it clear that targeting the wrong constituency can have negative effects on poverty as well as the political acceptability of the reform programme as a whole (Graham, 1994b).

Initially, SAPs were criticised for ignoring the political risks inherent in the implementation of such programmes (Kayizzi-Mugerwa and Levin (1994), p. 1; Taylor, 1990; Jolly, 1989). Thus, for example, policies that appeared rational and sensible, when viewed from an economic perspective, could prove to be highly risky politically. The stalled economic reform programmes under Kenneth Kaunda in Zambia because of political pressure is an excellent illustration of such problems (Steel, 1988). As we have seen, the political risk factor inside adjusting countries is an important reason for trying to mitigate the social costs that increase political risk. In the Mexican case, the worst election results ever for the ruling Institutional Revolutionary Party (PRI) in 1988, were a major factor in the creation of the Programme of National Solidarity (PRONASOL), as Carol Graham points out: 'PRONASOL's very origins – like those of many other such programs – can be traced to the political context' (Graham (1994a), p. 323).

However, it can be argued that the critiques of UNICEF (Cornia *et al.*, 1987) had more influence on the actual policy of the World Bank (Kayizzi-Mugerwa and Levin, 1994), leading in part to the creation of

the Social Dimensions of Adjustment unit (World Bank, 1990a). Essentially, the analyses of UNICEF and the SDA unit point out that a lack of financial and human capital means that the poor do not respond to changes in prices and incentives. As these groups suffer from stagnant incomes combined with rising prices, mitigation of shocks is required. The 'second generation' of SAPs' – those undertaken after the mid-1980's – focused on social concerns, and these issues were internalised by the late 1980s (Kayizzi-Mugerwa and Levin (1994), p. 2; Quarcoo, 1990). An active poverty alleviation approach has thus emerged, hence the growth of recent work by the World Bank and its consultants. Until recently, the poverty reduction literature of the World Bank had been based upon the commissioning of country poverty assessments, whose findings and policy prescriptions, were rather predictable – inappropriate economic policy frameworks were the main cause of poverty, hence macroeconomic reform would be prescribed; see, for example, World Bank (1994c). More recent poverty assessments have accepted that the social dimensions of reform are equally important (World Bank, 1995).

There are definite parallels here with the emergence of the governance agenda. The question is, how important are either the governance or poverty alleviation agenda to the overall World Bank project?

> The current ideology is not really new. It is a revision of the orthodoxy prevailing in the 1980s, not an entirely different approach... What is new is the belated recognition of the centrality of the state, and in particular, accountable government, to sustained capitalist development. (Sandbrook (1993), p. 2)

Sandbrook's position is consistent with the argument of Williams and Young, that the adoption of the governance agenda reflects a significant, if not a fundamental change, in Bank thinking and approaches:

> The World Bank's focus upon a new range of issues, not simply technical and managerial, under the heading of governance thus seems to be *an important departure from previous policy*, prompted in large part by its experience in Africa. (Williams and Young (1994), pp. 85–6, (emphasis added)

Both authors refer to *Sub-Saharan Africa: From Crisis to Sustainable Growth* as having played a crucial role in stimulating this departure, and Williams and Young define it as 'a watershed in the emergence of

governance issues in the Bank's thinking' (Williams and Young (1994), p. 86). In particular, they echo Sandbrook in emphasising the importance and novelty of an approach that prioritises the political underpinnings of developmental outcomes, emerging within the parameters of an evolving

> 'development orthodoxy' in the wider development community of Western governments, NGOs and academics... The new focus upon governance is in part based upon a growing consensus in the wider development community that political considerations play a crucial role in determining development.
>
> (Williams and Young (1994), p. 88).

The alternative argument is that governance, like poverty alleviation (Jolly (1991), p. 1819) involves simply 'a change in the rhetoric' of the World Bank (Sinha (1995), p. 567), just a bolt-on extra to save the (neo-classical) skin of Bank policies. The World Bank themselves say that

> the rationale for the Bank's involvement in governance is that it helps improve the effectiveness of its programs and projects, and not as a new line of business. (World Bank (1992), p. 52)

Governance is seen as 'an essential complement to sound economic policies' (World Bank (1992), p. 1). An alternative viewpoint is that, like poverty alleviation programmes implemented with World Bank support, governance reforms are part of an effort to increase the political sustainability of adjustment within adjusting countries.

It is important to define precisely the relationships between the Bank's poverty alleviation and governance agendas. To a large extent the concern with governance is derived from its mandate to engage in poverty alleviation, and in terms of World Bank activities and interests, poverty alleviation is chronologically and logically prior to governance, as shown by Lewis Preston, the late World Bank President: 'The World Bank's increasing attention to issues of governance is an important part of our efforts to promote equitable and sustainable development' (World Bank (1992), p. v).

At the same time, governance issues are central to successful poverty alleviation strategies, as 'the quality of governmental performance is particularly important' to help governments deal with complex issues such as poverty (World Bank (1992), p. 53). 'Good governance'

is seen as being crucial for creating an environment that can foster 'strong and equitable development' (World Bank (1992), p. 1).

POVERTY ALLEVIATION PROGRAMMES AS A SUPPORT FOR ADJUSTMENT AND/OR ADJUSTING GOVERNMENTS

The failure of Structural Adjustment to produce real growth, development and improvement in living standards means that interventions such as poverty alleviation programmes are needed to justify the continuance of adjustment, both internally and externally. Moreover, the fact that a well-designed PAP can contribute significantly to the political sustainability of SAP is a central feature of Carol Graham's work, and we might assume, World Bank thinking. Social funds are promoted as a flexible response mechanism for governments for dealing with the social costs of adjustment (World Bank (1993b), p. 154). Will this be a response to crises of poverty or to political crises?

As we have seen, the Bolivian ESF is promoted as a good example, as it had a 'substantial impact on the political sustainability of economic reform and on poverty alleviation' (Graham (1994a), p. 312). This is because the ESF gave the poor a means to help themselves, and thus a stake in economic reform. It added to government support (albeit not necessarily to SAP) among previously marginalised sectors, which in turn enhanced economic reform. Although the ESF did not target the groups most adversely affected by adjustment, the tin miners in particular, it is unlikely that this would have diluted their opposition to SAP. Thus the effects on the political sustainability of SAP of targeting the groups most affected by adjustment can be marginal. By enhancing the political 'voice' and economic potential of targeted groups, the ESF is seen as an ideal example of a PAP used to build a pro-reform coalition, based on the incorporation of groups that had previously been excluded (Graham (1994a), p. 312; 1992). However, this is difficult to reconcile with the claim that the ESF had no discernible effect on the elections in 1992 and 1994.

The analysis of Mexico makes this point even more clearly. PRONASOL's effectiveness at enhancing the economic potential and political voice of the poor is seen to depend on its ability to serve as an alternative to PRI among previously marginalised groups, by providing a channel 'through which popular groups can express their demands' (Dresser (1991) p. 26). This is important, because the economic reform measures implemented by the Mexican government

after the 1982 debt crisis have of necessity undermined many of the corporatist structures that had kept the PRI in power since 1920. The land reform measures have entailed selling off *ejido* land, while trade liberalisation and privatisation have had negative effects on industry, undermining PRI support within the peasantry and the trade unions, respectively. Indeed, with reference to the latter, it should be noted that a large proportion of the votes for Cardenas' opposition PRD party in the 1988 election came from industrial workers, or former industrial workers. Given that, if the PRI is ever voted out of office, the adjustment programme may well be under threat, as indeed might the NAFTA agreement, the political sustainability of economic liberalisation in Mexico requires new political support networks that will keep the PRI technocrats in power. Thus, we could argue that PRONASOL is an important part of building a new corporatist system in Mexico, based on a sophisticated form of clientelism that does not obstruct the free-market political system. Thus, Jonathan Fox sees the Mexican system moving towards what he calls 'semi-clientelism' (Fox, 1994).

Yet neither PRONASOL nor the ESF have been truly able to target either the most vulnerable groups nor the groups at the furthest margins of the political system. For example, the proportion of uptake by poor groups of the ESF in Bolivia is low: 'fewer than half the participants in Bolivia's Emergency Social Fund came from the poorest 40 percent of the population', which compares very unfavourably with other emergency poverty relief programmes, such as in Bangladesh, where 90 per cent of the participants in the Food for Work Program had incomes below the poverty line (World Bank (1991b), pp. 18–19). Similarly, the revolt in Chiapas showed PRONASOL's inability to incorporate the most marginalised groups into the political process.

Furthermore, the World Bank and Carol Graham's enthusiastic support for the Zambian PAP efforts also does not seem to gel with reports of increasing and deepening poverty. However, we must remember that the groups of the poor to whom journalists have most access, and indeed who are the subject of most of the Zambian reports cited above, are the urban poor. Ever since 1989, the World Bank have emphasised the empowerment of the rural poor (World Bank, 1989), while more recent reports assert that adjustment has had a beneficial effect on rural poverty (World Bank, 1994a). Meanwhile, critiques of Kaunda's liberalisation efforts in Zambia are critical of the political power that groups of urban poor were able to wield over

the government (Steel, 1988; Graham, 1994b). It might appear that groups of urban poor are not the main welfare concern of the adjustment process, and thus not included in the ideal PAP. This adds weight to the thesis that the PAP agenda is designed to incorporate new groups into the political system, so that they can act as a pro-adjustment political counterweight to more traditionally powerful groups opposed to reform.

In this context it is worth noting Björn Beckman's points about the civil society element of the governance agenda. Despite the rhetoric on 'governance', implying systematic promotion and empowerment of civil society, and of accountability within government, the reality is that SAPs are implemented despite large internal opposition, much of which comes from Africa's existing civil society, namely community organisations, trade unions and professional organisations and the like. Even those groups, such as professional associations, who might be expected to support liberalisation programmes, find themselves opposing them, as they are the mouthpieces for communities that cannot, as a rule, hold their own government directly accountable, and certainly cannot bring external creditors and donors to account (Beckman (1992), p. 91). Such groups are presented by the World Bank as 'vested interests', profiting unfairly from pre-SAP arrangements, and are thus an impediment to the overall SAP agenda – yet these groups can equally be seen as a democratic foundation (Beckman (1992), p. 84). There appears to be an obvious parallel between only admitting the political legitimacy of groups that will support adjustment, and targeting poor groups that will eventually contribute to the political sustainability of adjustment.

Yet it is equally clear that PAPs are used to preserve current coalitions during adjustment. Carol Graham admits that

> even the most seemingly well-designed interventions in the social sectors are not entirely free from political pressure and influence. Governments are apt to see these programmes as potential sources of political legitimacy, since they eliminate some of the socially disruptive impacts of adjustment policy.
>
> (Kayizzi-Mugerwa and Levin (1994), p. 7)

Joan Nelson adds that the political feasibility of pro-poor policies generally hinges on the degree to which vested interests and underlying structures producing poverty are left intact (Nelson, 1989). Thus, 'It might, for instance, be necessary to compensate certain groups, not

necessarily the poorest, in order for the rest of the [adjustment] program to be implemented without undue impediment' (Fargeix, 1990).

This appears to be the typical pattern for many PAPs. The Chilean employment programmes are an example of shielding the government from political fallout from a severe economic crisis. To take the two Senegalese examples, the DIRE programme was dominated by clientelism and the government party, and had little impact on groups other than its direct beneficiaries – namely, retrenched civil servants or graduates who might otherwise have expected jobs in the bureaucracy (Graham (1994a), p. 313). Meanwhile, the popular perception of AGETIP is that it is a tool of 'the system' and/or the governing party (Graham (1994a), p. 314).

What is noteworthy is that Carol Graham criticises both for having had a limited effect on the political sustainability of SAP, because of the clientelist approach of the former, and the popular perception of clientelism regarding the latter (Graham (1994a), pp. 313–14). The success of PAPs depends partly on a commitment at the highest levels to keep them insulated from partisan pressures (Graham (1994a), p. 320). However, in Mexico, this is not always the case, as Graham points out: 'President Salinas's personal commitment to the program ... may serve to enhance his personal power', but it also ensures that it gets administrative priority (Graham (1994a), p. 322). It appears the 'partisan pressures' that PAPs are to be free from are those that strengthen pre-existing clientelist structures to the detriment of the political sustainability of SAP, because in Mexico the importance of PRONASOL to the political sustainability of economic reform is such that its use for clientelist purposes by the President is tolerated, even encouraged, as it ensures prominence for the programme.

THE WORLD BANK POVERTY ALLEVIATION STRATEGY – MORE QUESTIONS THAN ANSWERS?

The World Bank's current, macroeconomically-focused poverty reduction strategy was first outlined in the World Development Report 1990, and has been developed further and operationalised (World Bank, 1990b, 1991b, 1993a, 1993b). Broadly, the WDR 1990 strategy consists of three elements: the first and (we might assume) most important of which is a suitable macroeconomic policy framework (that is, a successful adjustment programme) that produces

growth. This raises a significant problem in that it presents Structural Adjustment as a anti-poverty measure by itself, whereas many commentators outside of the World Bank sphere would assert the exact opposite.

Furthermore, it is acknowledged in some of the literature (often implicitly) that many adjustment measures will in fact increase poverty. For example, the Zambian government's adjustment programme, the new Economic Recovery Programme (ERP), whose documentation asserts that ERP 'will have long-run positive impacts on the poor in Zambia', resulting from increased spending on health and education, as well as liberalisation of the small-enterprise sector and increased growth, but acknowledges that 'some measures, especially the necessary increases in prices for maize and fuel may have negative consequences on the poor especially in urban areas' (Zambia (1992), para. 75). In Carol Graham's terms, the relationship between the poverty alleviation programmes, and the overall economic reform agenda is by necessity mutually reflexive:

> Programs must be implemented as an integral part of the economic reform program, so that successive governments have a stake in their successful implementation and so that beneficiaries have a stake in the ongoing process of economic transformation.
>
> (Graham (1994a), p. 320).

Beyond the overall economic reforms designed to bring about growth, the poverty reduction strategy consists of active pro-poor programmes, for example Public Works initiatives. These are backed up by social 'safety nets'. This formula presents some terminological and conceptual problems, however. The 1990 World Development Report defines a safety net as 'some form of income insurance to help people through short term stress and calamities' (Marc *et al.* (1995), p. 9); World Bank, 1990b). Essentially, the term 'safety nets' in the context of adjustment, refers to a range of compensatory measures designed to mitigate the social costs of adjustment; they are 'social adjustment packages' (Vivian, 1994) rather than comprehensive social insurance against poverty. Specifically, safety nets involve both targeted social services and benefits, and various types of 'social fund' and 'social action programme', both of which are project based (Marc *et al.*, 1995; Vivian, 1994).

While social action programmes are considered to be safety nets (Marc *et al.* (1995), p. 1), they exhibit certain characteristics that make

us question that classification. Are such programmes permanent or wide-ranging enough to be considered as safety nets? A more rational classification might be to group them as distinct pro-poor programmes, which raises questions of the reality and extent of participation and the distribution of benefits among different groups. Indeed, Marc *et al.* admit that, in fact, social action programmes have broader objectives than providing a safety net, beyond poverty reduction, namely the reintegration of destitute groups into the economy. Moreover,

> a social safety net should have a wide coverage to respond rapidly to a drop in living standards, where [social action programmes and social funds] have been slow to act and, at the beginning, did not reach a large portion of the target population ... In few cases have [social action programmes and social funds] contributed to creating a real safety net. (Marc *et al.* (1995), p. 9)

Social funds present different problems of classification and evaluation. To what extent have social funds successfully targeted the poorest groups or regions? In the case of the Bolivian Emergency Social Fund (ESF), neither the poorest regions nor the poorest deciles of the overall population received as much assistance as other areas (World Bank (1991b), p. 18–19; Graham, 1994b). Even where funds have been distributed to the most vulnerable areas, such as to the state of Chiapas in Mexico under the Solidarity programme, which received a large share of PRONASOL funding, the problems of poverty at the micro level have remained, and even been exacerbated, creating the conditions that led to the violent revolt by Zapatista guerrillas (Castañeda, 1994). Much of the work on social funds leads us to the assertion that the 'safety net' role of such projects is to prevent political fallout. Carol Graham's enthusiastic promotion of the funds points out that their overall benefits are twofold: by giving previously disenfranchised groups a 'voice', they are given a crucial lever in alleviating their own poverty; but, more importantly, this will give them a stake in the economic reform programme (Graham, 1994b, 1992). We are left with the central assertion that the overall economic reform programme is, in fact, central to poverty reduction. Thus social funds should not be classified as 'safety nets' but rather as pro-poor programmes that embody a specific political agenda, namely the promotion of adjustment measures.

The social fund approach has emerged as the dominant model of PAPs promoted by the World Bank. However, it should be noted that

the distinction between the two approaches is less clear-cut in Africa than in Latin America, for even those PAPs that embody the social action programme approach are including elements of the demand-based strategy, or they exist alongside social funds. In the process, the Bolivian Emergency Social Fund (ESF) has had a clearly catalytic effect on subsequent World Bank policy strategies. Officials wanting to buffer the adverse effects of adjustment on Bolivia's poor, were able to meet urgent needs by supporting local NGOs through the ESF (Durán, 1990). Observing the success of this approach has led the World Bank to switch from large-scale poverty alleviation projects managed by governments towards favouring social funds implemented by NGOs and driven by beneficiary demands (Farrington *et al.* (1993), p. xiv), as mandated under all recent PAPs.

THE DIFFERING POLITICAL IMPACTS OF PAPS

Initially, PAPs supported by the World Bank in Africa would have been defined as social action programmes, namely regular investment projects, where each component would be fully appraised and each implementing agency identified prior to project commencement. Typically, the components would be implemented by government ministries, although some do involve NGOs. The experience of the Bolivian Emergency Social Fund has added a new dimension to the PAP agenda, the social fund, also known as social investment funds. Social funds appear to be the more market-friendly approach; or at least more in line with neo-liberal thought. Social funds are based on 'consumer demand'; their components are usually implemented by NGOs; and their management usually requires a degree of autonomy (Marc *et al.* (1995), p. 10).

In this context, the Ugandan Programme to Alleviate Poverty and the Social Costs of Adjustment (PAPSCA) is extremely interesting, combining as it does the two approaches. Financially, PAPSCA is run like a social fund, but in organisational terms run as a social action programme, allowing targets that are determined centrally (World Bank (1993b), p. 155). The intention has been to predetermine target groups, while preventing financing from falling prey to existing institutional problems. This seems to show that wholly market-based solutions to poverty cannot work because there are groups with a greater voice and a less need that will benefit disproportionately from demand-driven programmes. The blending of the two PAP

approaches, as with PAPSCA, as well as certain cross-national irregularities between types of programme, mean that the distinction between the two appears to be unclear. To take a further example, the demand-based PRONASOL in Mexico is not managerially autonomous, as the disbursement of funds has on occasion followed a political agenda (as detailed below). In fact, politics impinges on all PAPs, despite the contrary claims for social funds.

This is an area where the poverty alleviation agenda links directly with the governance agenda. The institutional context is very important, especially as social funds are intended to exist independently of the established government bureaucracy. Moreover, in the implementation of PAPs, there are few degrees of freedom – much is left to the ingenuity of programme implementers and the collaboration of the recipient communities (Kayizzi-Mugerwa and Levin (1994), p. 6). Carol Graham attempts to simplify the problem of institutional placement of PAPs by presenting it as a choice between the longevity of the poverty alleviation effort and an efficient institution of poverty reduction. Within the public sector, benefits can be 'lost'; while new and temporary institutions, supported in the main by external donors, suffer from a lack of longevity, and do not sustain themselves. Thus the crucial question is the aim of the programme: is it short-term relief during the economic recovery and adjustment period; or a long-term complement to existing social sector policies (Graham (1994a), p. 322)? In reality, the choice is not so clear-cut. For example, PAPSCA is funded externally, operates in the main outside of the established bureaucracy, albeit with some monitoring, and is implemented mainly by NGOs (Okune, 1993), raising questions of its overall sustainability and longevity. At the same time, PAPSCA's efficiency is open to question, suffering from low donor confidence and domination by projects favoured by government ministers (Okune, 1992).

There is a problem here in trying to draw comparative lessons from the PAP experience of very different countries, from three different continents, as

> There is no 'leading edge' set of reforms in public sector management. On the contrary, reform needs to be tightly embedded in the diverse institutional structures of individual countries and areas. This is widely understood in literature on individual cases and sectors but often forgotten in general policy documents. For example, one country's health care system, however desirable, cannot just be transferred to another country. (Mackintosh, 1995).

However, Carol Graham's comparison of the experiences of Chile, Bolivia, Peru, Zambia, Senegal and Poland does draw the following lessons for any poverty alleviation programme, and Mexico's PRONASOL in particular – these are the basis for a political economy analysis of PAPs (Graham (1994a), pp. 310–11). First, an open political environment is more likely to result in a broad political support base for economic reform, resulting in an appropriate policy environment for poverty alleviation. Second, open political systems are more likely to encourage the participation of diverse groups, for example NGOs and local institutions, in poverty alleviation. This enhances the capacity of PAPs to reach the poor and other marginalised groups, meaning that they have a stake in economic reform. Finally, reliance on the participation of beneficiaries and their representative organisations strengthens their long-term capacity, and gives greater voice to marginalised groups.

In this context it is worth re-examining Carol Graham's analysis of the anti-poverty programmes under Pinochet in Chile: 'Free of the political constraints that would have arisen in a democratic environment, the government was able to reallocate resources from more organized sectors to poorer groups at will' (Graham (1994b), p. 21).

This appears to be a contradiction of the assertion that a successful PAP requires an open political environment, and certainly, it does reflect the fact that targeting that is both accurate and politically sustainable is very difficult in such an environment. However, what emerges from the full analysis of the Chilean programmes is that they were designed with the aim of sustaining Pinochet's political power, so that (bluntly) their design facilitated an authoritarian system (Graham (1994b), p. 21). Furthermore, the converse holds, namely that the PAP that operates in a more open political environment has more complex politics behind it, because, as well as reaching its target groups, it must be able to sustain itself (and the government that implemented it) politically.

FILLING AN INSTITUTIONAL GAP

> A root cause of weak economic performance in the past has been the failure of public institutions. Private sector initiative and market mechanisms are important, but they must go hand in hand with good governance – a public service that is efficient, a judicial system that is reliable, and an administration that is accountable to its

> public. And a better balance is needed between the government and the governed. Thus [*Sub-Saharan Africa: From Crisis to Sustainable Growth*] sets out a range of proposals aimed at empowering ordinary people, and especially women, to take greater responsibility for improving their lives – measures that foster grassroots organization, that nurture rather than obstruct informal sector enterprises, and that promote non-governmental and intermediary organizations. The growing conviction is that development must be more bottom-up less top-down and that a learning approach to program design is to be preferred to the imposition of blueprints.
>
> (World Bank (1989), p. xii)

Poverty alleviation programmes can fulfil important parts of the governance agenda, in that they are supposed to help fill the gap between the institutions of government and the general population. In the main this is achieved by the emphasis on beneficiary participation and on programme implementation by NGOs, particularly in the case of social funds.

Participation

The focus on beneficiary participation is an important part of the promotion of civil society and moves towards more pluralistic governance, and thus explicitly links the poverty alleviation agenda with the governance agenda (World Bank, 1994b). The positive effects of programmes such as PRONASOL on poverty alleviation and the political sustainability of economic reform depends on 'the program operating in a transparent manner that incorporates the participation of the poor, thereby enhancing their economic potential and political voice' (Graham (1994a), p. 320). Similarly, this is an important part of the rhetoric of Uganda's economic programme, the Rehabilitation and Development Plan (RDP). The social goals of the RDP are meant 'to involve people and communities through popular participation in the planning and provision of these services' (Uganda (1989), pp. 65–6).

The extent and reality of participation is the main point here. The same section of the RDP document goes on to add:

> Communities will be mobilized to provide labour, materials and where possible funds on a self-help basis to supplement government inputs in the sector. Partial cost recovery is to be introduced for some of the basic services so as to raise funds and ensure regular

> availability and the high quality of such services plus their sustainability. (Uganda (1989), pp. 65–6).

The question thus remains: how real is this participation, given that the new approach only allows for limited empowerment of communities, many are likely to lack funds and resources to contribute. In addition, the seemingly innocuous phrase 'partial cost recovery' refers to the policy of imposing charges for basic services such as health and education at the point of delivery. Wider participation is supposed to promote the ability of the poor to air their concerns and influence policy, but the extent to which this 'voice' is real and effective can be questioned. A. M. Goetz and D. O'Brien point out that the poor are unlikely to participate simply because the mechanisms are now there; more is required. We must ask: what groups and individuals are likely to participate? For a political scientist, poverty is best defined as the absence of power; thus, for full participation, this lack of power needs to be overcome – clearly a multidimensional problem (Goetz and O'Brien, 1995). Moreover, a truly participatory system requires the ability to 'exit' as well, namely the option of choosing an alternative, as well as the ability and resources to make that choice viable. Most of Africa's poor, by their lack of political and economic power, lack either the luxury of choice or the ability to act on it.

The level and extent of participation depends on the type of targeting mechanism used. L. Haddad and R. Kanbur suggest two types of mechanism, one of which is self-targeting, which requires an announced scheme, allowing unlimited participation, but designed so that only members of the target group find it worthwhile to participate (Haddad and Kanbur, 1992). Other forms of 'targeting can entail high costs in terms of time and resources' (Graham (1994a), p. 321), favouring the self-targeting approach. However, Squire suggests two explanations for low efficiency in targeting. First, there are political reasons; beneficiaries are weak politically and stronger groups can, for example, siphon off funds (Squire, 1993). Second, in terms of identification, targets are human beings who can act and react in response to the policies undertaken, and thus are 'moving targets' (Sen, 1992). The problems of targeting have a particular bearing on the questions of participation and empowerment – if the aim of a PAP is to empower the poor by enhancing their 'voice', the use of a self-targeting mechanism that requires an element of 'voice' to be present already, is questionable.

As we have seen, the participation of the poor in PAPs is a major part of the efforts toward the political sustainability of SAP. Yet this participation appears less of an effort at real empowerment of the poor than a managerial mechanism. Take, for example, A. Fargeix's view of PAPs, where different reactions to policy change are important considerations in programme design. This means that, where appropriate, the use of such programmes to compensate certain groups, who are 'not necessarily the poorest', is sanctioned, to ensure the smooth running of both the PAP and the SAP (Fargeix, 1990). Furthermore, the reality of beneficiary participation in PAPs may be overestimated, even if projects are implemented by NGOs. Studies of the reality of participation by communities in NGO projects show that beneficiaries are unaware of the purpose of NGO activity, and their alienation from the activities of the state may well be replicated in their feelings towards NGOs (Vivian and Maseko, 1994).

New Institutions

What conclusions are to be drawn from the governance point of view where PAPs are new and/or temporary institutions? Should PAPs be sustainable institutions, with some degree of permanence? Or are the PAPs that exist as part of SAPs designed to alleviate the social costs of adjustment alone (and thus eliminate potential political problems)? The problem here is that the poverty in most African countries is too deep and too widespread to merit mere temporary relief. If adjustment fails to bring substantial economic benefits, the situation will probably get worse.

The World Bank itself admits that, from a governance point of view, the past tendency in Africa to create new institutions where none have really been needed, has been harmful:

> Governments (and donors) have preferred to invest in new buildings and equipment rather than maintain their existing facilities and to hire new staff instead of giving their existing staff the resources they need to work effectively. (World Bank (1989), p. 27)

What justification is there, then, for creating new institutions to alleviate poverty, that may in fact distort and undermine the activities of permanent social sector institutions? In general, the PAPs covered in this chapter are temporary, with insufficient resources to meet the needs of all groups of the poor (Kayizzi-Mugerwa and Levin (1994),

p. 7), therefore PAPs must reinforce, and not supplant, traditional support systems (Ahmad, 1991). For example, in Gambia and Mali, household welfare systems are very important in the absence of state-run systems (Dayton *et al.*, 1993). This opens the question of how PAPs fit into established bureaucracies.

Where Do PAP Institutions Fit into Existing Bureaucracies?

PRONASOL has a life of its own outside the pre-existing Mexican government system. This is in common with most social funds, which are designed to be more or less isolated from existing government bureaucracy. This is likely to create problems of transparency and accountability, even if the government as a whole is accountable and transparent. For example, it is difficult to quantify PRONASOL's budget accurately, as some money may have been diverted from other social-sector spending (Dresser, 1991; Golden, 1992). In addition, many of the problems associated with the programme in Chiapas appear to have been due to a lack of local accountability.

If we look in greater detail at the PAPSCA in the Uganda programme an interesting picture emerges. Two out of thirteen PAPSCA projects are not directly concerned with poverty alleviation projects: the Social Dimensions of Adjustment (SDA) unit, concerned with implementing policy research and household studies; and the PAPSCA administration unit (Okune (1993), p. 24). Of the provisional funding figures for PAPSCA, 80.4 per cent was to be directed to projects within the Social Infrastructure sector (Uganda (1989), p. 69). The Social Infrastructure sector comprises the elements of PAPSCA except the SDA and administration components, which means that these two components receive almost 20 per cent of funding. My own research uncovered the claim (uncorroborated) that almost $1 million was 'lost' by the PAPSCA administration unit.

If PAPSCA does fulfil an important function for the whole government bureaucracy, it may be that it is a means of getting hold of otherwise elusive donor funds. Some of the figures contained in the RDP documentation bring this out. The financial resource requirements for the Public Administration part of the RDP, within PA06 (the sector in charge of PAPSCA) were $7.8m, with all funds secured, whereas over the whole of the public sector there is a funding gap of $4.76m, 16.9 per cent of total project costs (Uganda (1989), p. 79). Simple arithmetic then shows that, of a total project cost of $28.2, the PA06 elements have secured 100 per cent of their funding, while the

other sectors have met only 76.7 per cent of project costs. It is also worth noting here that the perceived advantage of NGO involvement in the implementation of PAPSCA is not only the 'bureaucracy free mode of operation', but also the fact that international NGOs can contribute towards the costs of projects (Okune (1993), p. 27).

All policy matters pertaining to the programme are decided by or cleared with the Ministry of Finance and Economic Planning with a senior accounting officer of that ministry being the mandatory signatory of PAPSCA accounts. There also exists an interministerial steering committee, composed of 'concerned line ministries, NGOs and donors' (Okune (1993), p. 25). Meanwhile, the day-to-day administration is carried out by the PAPSCA Co-ordination and Monitoring Unit (PCMU) (Okune (1993) pp. 25–6). This appears as a proliferation of administrative bodies and presents a confusing overall picture. The two international NGOs implementing PAPSCA components found it difficult to deal with these structures, in particular regarding procurement of funds. It is easy to see that influence over PAPSCA can come from anywhere in the government machinery, and apparently does, as a report from the PCMU indicates (Okune, 1992). Two major PAPSCA projects, providing low-cost water and sanitation in Kampala, and rehabilitating primary schools nationwide, are carried out by Project Implementation Units (PIUs) within the Ministries of Local Government and Education, respectively. They are 'staffed with persons recruited from the open market through open competition. Their levels of remuneration are designed to attract and retain persons of high qualifications, operational competence and integrity' (Okune (1993) p. 26).

Thus the implementation of PAPSCA is carried out either by NGO staff or government officials recruited at a higher rate of pay than is usual. Thus PAPSCA would like to present itself as the elite corps of the Ugandan administration, but as we have seen, is not sufficiently distanced from the rest of the government machine to be independent, and can be used by ministries for their own purposes.

CONCLUSION

This paper has focused principally on the political and governance aspects of both social action programmes and social funds. Several clear points have emerged from the analysis of different PAPs across Latin America and Africa. First, there is the difficulty of translating

the positive experience of one country to other countries, let alone other continents, as part of a meaningful poverty alleviation programme. In particular, attempts to define, and subsequently to package, the Bolivian ESF as a model underline the need for caution. Inevitably, attempts to translate and transfer successful innovations in the form of the 'best practice' model tend to isolate what are perceived as key elements in success stories from their wider context. In the case of the ESF model, the main 'lesson' incorporated into subsequent PAPs has been a focus on NGOs as crucial intermediaries in demand-based programmes. In practice, of course, NGOs involved in PAPs have often proved to be weakly orientated towards particpatory activities, frequently professing traditional top-down approaches to the uncertainties of client-defined agendas. Second, it cannot be assumed that PAPs are automatically calming and stability enhancing. The most successful demand-based programme described above, PRONASOL, has been the victim of partisan pressures, and the state which received most assistance from the programme erupted into a violent revolt. Third, and most importantly, despite institutional evolution from supply-based to demand-based organisations, PAPs often appear to have had little discernible effect in terms of improvements in poverty alleviation, the political sustainability of economic reform, or the governance of social sector policy overall.

There are very complex issues here. Poverty itself is a multidimensional problem, and the depth and breadth of poverty in Africa creates special problems for targeting of social sector programmes. The World Bank itself has three different classifications of the poor, and hence of poverty (World Bank, 1991a):

(i) The 'chronically poor', including the 'ultra poor', who lack the resources to free themselves from poverty. Their situation is mainly a result of pre-SAP structures and policies;
(ii) The 'new poor', who have fallen below the poverty line as a result of economic shocks and reforms. Some of these may experience only 'transitory poverty', while others may become chronically poor; and
(iii) 'Other vulnerable groups'; those who are severely affected by adjustment, but who do not necessarily fall below the poverty line.

This presents us with significant problems, as it is easy to imagine overlap between the categories. For example, to what category might

person X belong, who had previously been above the poverty line, was severely and negatively affected by the policies of adjustment and as result has become chronically poor; in other words, now lacking the resources to free him/herself from poverty? In effect, the classification becomes a political decision that affects both the judgement on the politics and distributional effects of adjustment, as well as the actions that will alleviate that poverty. This adds up to an 'identification problem' (Ravallion, 1992). Policy measures affect households in different ways – supply-side adjustment measures affect markets, which in turn affect consumption, and thus a consumption-based measure is enough, whereas demand-side measures, for example in social services, require a welfare measure based on basic needs (Kayizzi-Mugerwa and Levin (1994), p. 5).

Similarly, where should the poverty line be drawn? Naturally, an appropriate and non-controversial indicator is required, but this is difficult to achieve objectively, as poverty is a multidimensional problem (Kayizzi-Mugerwa and Levin (1994), p. 4). Moreover, is poverty an absolute or a relative concept? A relative conception, for example taking the lowest 30 per cent as a measure, is useless when discussing poverty alleviation, while an absolute measure, comprising a minimum standard of living where a person cannot satisfy his/her basic needs of food, clothing and shelter, is difficult to construct, because some value judgement is always required (Glewwe and van der Gaag, 1990).

The classification of the poor into the above groups is hindered by the fact that there are significant problems in evaluating the distributional impact of adjustment programmes. First, there is a lack of counterfactual – what would have happened in the absence of structural adjustment? Second, there is a lack of meaningful socioeconomic data on the poor, and that which exists is of dubious quality – although this problem is now a significant part of the 'social dimensions of adjustment' agenda. Finally, analyses of SAP have tended to focus on short-term costs, while long-term costs and benefits are also very important (Maasland, 1990).

When aims such as the active participation and empowerment of the poor are discussed, the assumption is often that once such groups are given the correct policy environment, and appropriate mechanisms, they will respond in the required manner. This is not only a superficial interpretation of poverty, but also lacks any political formulation of the problem. This may, in fact, be dangerous and counterproductive, as insufficient consideration of the real politics of poverty

may easily undermine poverty alleviation efforts. Moreover, the 'poor' are not one coherent mass who will all react in the same way to policy stimuli; different groups and individuals are likely to act in different ways. PAPs that do not take account of this could provoke conflict between groups who find themselves empowered very differently (Goetz and O'Brien, 1995).

Beyond the alleviation of poverty, the PAPs discussed in this chapter are judged on the criterion of their contribution to the political sustainability of economic adjustment. There are essentially two methods: compensate the groups already incorporated into the system for any losses that may result from adjustment; or attempt to incorporate new groups in a new pro-reform coalition. This does not square very easily with the World Bank's governance agenda; legitimacy for reform is not only emerging from semi-clientelist endeavours, but from what is often a top-down approach. Similarly, the value of social funds in building pro-reform support is seen to be important enough to necessitate creating new autonomous institutions to implement them properly. This disregards, indeed exacerbates, the problem of proliferating public-sector institutions that had been seen as a major part of the problem of poor governance in Africa, without possessing the compensating virtue of providing clear-cut mechanisms for institutional capacity building in the wider government system. However efficient and effective such institutions themselves are, by definition they are isolated and therefore largely irrelevant as reform catalysts within poorly performing government bureaucracies.

Finally, therefore, given the largely negative picture that emerges from this overview, it is relevant to raise the question of whether PAPs, at least as presently defined, conceived and implemented under SAPs, are fatally flawed as key mechanisms in the performance and delivery of social-sector policy. On the basis of the available evidence, this is a question whose solution cannot easily be found, nor which can be answered fully, or finally. Provisionally, it may be that the most important conclusion to be drawn from this chapter is that the impact of institutional and policy innovation can be rather comprehensively undermined by neglect of political considerations and lack of political understanding. This is a clear problem in the formulation of both the poverty alleviation and governance agendas. In both, participation appears as a managerial device, designed to incorporate participants in the ongoing reform programme, and thus sustain it politically. While this may be an advance from the first SAPs that took no account of political dimensions, it does appear that the only

political agenda is the promotion of SAP, and that this aim, paradoxically, is seen by the Bank as being apolitical. However understandable this stance may be from the Bank's perspective, the fact that the Bank cannot, under its Articles of Association, come to terms with the 'political' issues raised by its own projects and strategies is clearly a problem with rather large ramifications, not least for the world's poor.

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20 Taking Root . . . Gaining Ground: Diversity in Food Production for Universal Food Security[1]

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In a rapidly deteriorating economic and social climate, alternative food security strategies are needed, not only for subsistence in rural and coastal communities, but also for ensuring sufficient surplus production to provide affordable food for the increasing proportion of poor people who now live in cities. The pace of change has increased so much that many food producers can no longer apply their indigenous innovative capacity to maintain their own food security, let alone produce surpluses. Without increased support for diverse, productive and sustainable food production systems, universal food security will be threatened.

A common, but outmoded, way of addressing issues of vulnerability in food security has been to start by looking at national-level food production and consumption, essentially in economic supply terms only, and then move on to communities and households. At the time of the 1974 World Food Conference, international policy-makers, donors and international agricultural researchers had an almost exclusive focus on increasing national crop and livestock production targets. At the 1984 FAO World Conference on Fisheries Management and Development, the focus was on increasing extraction rates of fish from the sea and production from aquaculture, as the solution to the forecast shortages of fish. The understanding of food security has now evolved in all forums to embrace distribution issues, households' economic access to sufficient food, and locally-controlled, participative modes of production.

Links between poverty and food insecurity are well recognised, but fewer resources are now available for development aid as a result of changing attitudes and recession in northern industrialised countries, and increased emphasis on emergency aid. In a context of declining

aid, this chapter will argue for alternative approaches, rooted in diverse, locally-controlled production techniques, which have the potential to reduce dependence on external assistance and increase universal food security. Support for these approaches will be needed from policy-makers, professionals and NGOs: they will require economic and social policies that favour these modes of production, backed up by effective training, research and extension, and other 'intervention strategies'.

This chapter explores the context and threats to technologies for food production from crops, livestock and fish, and presents two case studies which illustrate an approach developed by Intermediate Technology (IT), to tackling food insecurity at household, community and international levels. They demonstrate participatory process approaches to the development of technology for more diverse, locally-controlled food production: working with communities to develop their knowledge and skills of production methods and the dynamic conservation of genetic resources[2] needed to ensure food security. One of the case studies presents the innovative work of local farmers and gardeners in adapting agricultural technologies in a semi-arid area of Zimbabwe. The other presents local experimentation by artisanal fishing communities in regenerating fishing grounds through developing artificial fish habitats in south-west India.

BACKGROUND

In Africa, absolute poverty is increasing, and elsewhere relative poverty is increasing. In Sub-Saharan African countries, for example, it was estimated in 1988 that 204 million people were poor, 65 per cent of whom were women (IFAD, 1992). It is estimated conservatively that between the years 1990 and 2000, the number of people surviving on the equivalent of less than a dollar a day will have risen by a further 75 million (Action Aid, 1994, 1995). The roots of this increasing poverty have been reported on extensively and will not be repeated here (see, for example, Barraclough, 1991; IFAD, 1992). The vulnerable groups identified include those:

- who are dependent on production in marginal areas, for example in drought-prone farming and pastoral areas, or in coastal fisheries where there has been serious depletion of fish stocks and degradation of the coastal environment;

- living in high income potential areas (for example, high-potential agricultural zones or peri-urban areas) who lack entitlement or access to sufficient productive resources or income; and
- who are refugees or displaced as a result of conflicts or other disasters.

One consequence of this insecurity, often leading to severe food shortages and occasionally to famine, and the publicity accompanying emergencies, is that greater proportions and amounts of development resources are being devoted to relief, much of it to relieve famine. For example, 12 per cent of southern Africa's regional gross domestic product (GDP) was absorbed by relief in 1992. In 1992–3 bilateral spending by members of the Development Assistance Committee of the OECD (DAC) members on emergency aid rose by more than 25 per cent. This trend continues, further reducing funds available for development assistance (Reality of Aid, 1994, 1995).

FOOD PRODUCTION SYSTEMS

The technology–possibility frontiers of food production systems have been pushed outwards constantly during the twentieth century, largely through technical change, with a tendency to relative capital-intensity (Raikes, 1988). A notable feature of many capital-intensive food production practices is the reduction of the labour requirement for a given level of production. A consequence, or even a condition, of these production methods is that they tend towards uniformity of technique, inputs and output, and are often constrained by the market to short-term horizons, which allow for unsustainable extractive technologies.

Population growth requires increased production which can be achieved through labour-intensive and environmentally-sensitive forms of production over time. The character of these production methods is that they can be as heterogeneous as may be required by local demands and conditions, and can produce food for locally-defined 'niche' markets. This mode of production is diverse, can be more sensitive to the local environment, increases labour demand per unit of capital and is more sustainable. The knowledge base of these production systems, particularly as they refer to farmers' own knowledge, is already well articulated (Lightfoot, 1993; Scoones, 1994).

From the dawn of agriculture ten to fifteen thousand years ago, women have selected crops and livestock to suit their, and their families', needs. Hundreds of thousands of farmers in several continents selected crops from very few species to satisfy human food needs. This focus on a few species has intensified in recent years. From approximately 220 000 species of plant, of which some 12 000 are edible, only about 150 species are cultivated commercially to any great extent. Grasses and legumes account for over 90 per cent of human food energy, with an estimated two-thirds of the dietary energy of the whole human population being met from just three species: maize, rice and wheat (Mulvany, 1992).

The potential insecurity of basing food production on so few species was diminished by intensive, dynamic, *in situ*, local selection of crops, in many locations, which resulted in diversification into hundreds of thousands of varieties to meet distinct needs and adapted to different ecological niches. However, despite the warnings of eminent plant geneticists from Nikolai Vavilov and John Harlan onwards, some 75 per cent of these varieties has been lost in the twentieth century, mainly because of the dissemination of new high-response varieties on a massive scale through capital intensive agriculture and intense marketing (Fowler, 1990).

Animals account for 19 per cent of the world's food basket directly, but they also provide draught power and manure for crop production, bringing their overall contribution up to 25 per cent. In human development from hunting to domestic livestock production, only about thirty species from an estimated 15 000 species of birds and mammals world-wide have been selected as the basis for about 4000 different breeds. Each breed was developed to provide a particular mix of animal products (milk, blood, meat, fibre, draught power and manure) in specific localities. But in Europe, for example, selection of animal breeds for capital-intensive production has led to a reduction by half of the breeds known at the beginning of this century. Most striking is the predominance of certain breeds, for example 60 per cent of the cattle in the EU are derived from the Friesian breed (FAO, 1993a; Anderson, 1995).

Fish provide around 16 per cent of the world's supply of animal protein, and in some countries, for example Bangladesh, fish accounts for more than 50 per cent of the animal protein intake. There are an estimated 10 million full-time and 10 million part-time fishermen in the South. This implies that there are around 100 million people in fisherfolk families, mainly of the world's poorest people, who are partly or

fully dependent on fishing. This estimate excludes the millions more whose livelihoods depend on fishery-related industries (FAO, 1993b).

However, the misuse of modern hunting and fishing technology (for example the 'walls of death' drift nets) has had a devastating impact on fish stocks and has reduced the genetic diversity in the aquatic ecosystem. The four decades since the 1950s have witnessed an industrial revolution in global fisheries. Massive use of refined fossil fuels and the application of highly capital-intensive modern technology have quadrupled marine fishery extraction rates, from some 20 million tonnes in the early 1950s to around 85 million tonnes in 1989 (FAO, 1993b).

In particular, the use of 'catch-all', non-selective fishing techniques in order to catch specific species (for example, prawns) has been one of the principal causes of resource degradation, impoverishment of biodiversity and huge wastage of fish. The targeting of single species for market, while catching every fish that comes into contact with the fishing gear, results in high levels of 'by-catch' and discards. For example, in prawn fisheries, 75–100 per cent of each catch is usually discarded, dead, into the sea, as 'waste' fish. As a consequence, the world is facing a fisheries crisis of global proportions. All the world's main fishing grounds are now estimated to be fished at or above their biologically sustainable limits; and 70 per cent of the world's fish stocks are now regarded as fully exploited, over-exploited, depleted or recovering (FAO, 1993c; FAO, 1995a; FAO, 1995b; O'Riordan, 1992).

One international instrument that could have contributed to the development of these marine resources – the United Nations Convention on the Law of the Sea (UNCLOS), ratified in 1984 – formalised national 200-mile exclusive economic zones (EEZs), but it did not acknowledge the value of traditional community systems for managing coastal common property fishery resources. The effect of UNCLOS has been to turn the global marine commons into commercial and tradeable assets, which northern fishery companies have been quick to acquire from foreign-exchange-hungry southern governments, as their own traditional northern fishing grounds have collapsed under the strain of unsustainable extractive fishing practices (Fairlie, 1995).

THE APPROACH USED BY INTERMEDIATE TECHNOLOGY

The approach used by Intermediate Technology (IT) in its work on food security promotes diversity: diversity of locally-determined

actions which in turn maintains the dynamic diversity of genetic resources, *in situ*, used in the production of food from crops, animals and fish (Mulvany, 1994). This approach makes individuals, households and communities the basis of study and project work; but it also places food security in the context of wider macroeconomic trends and developments, and emphasises institutional as well as technical development.

IT's specific contribution is in working with communities of smallholder farmers, herders and fisherfolk which are devising effective approaches to the management of technical change in food production in order to reduce their vulnerability and improve livelihoods. IT is able to work with communities to help them avoid the more obvious pitfalls and to strengthen their own technical skills – such as experimentation, flexibility of production, innovation and adaptation – which improve their ability to survive the crises they face. In the longer term, these skills enable women and men to identify their problems, and to develop and manage their own solutions. For sustainability, this requires the approach to be integrated within progressive local institutions. Ultimately this can result in people having more control over their lives (Biggs, 1995; Appleton, 1994).

In order to develop appropriate policies to enable producers to achieve greater control, there is a need to understand the diversity and complexity of food insecurity at local level. Similarly, participation by these producers in planning, understanding and strengthening coping strategies within the community provides a strong foundation for tackling food insecurity. IT has special expertise in the participatory development of technology, building on indigenous technical knowledge for increasing food security. Using this experience, accumulated since the early 1980s, IT contributes to food security policy debates, making evidence available, from its work with farmers, herders and fisherfolk (for example, see Cooper, 1992).

IT has acquired considerable field experience of food security issues in Africa, Asia and Latin America through a number of projects, working among farming, pastoral and fishing communities. These projects are built on priorities identified by communities and their knowledge and existing technical skills. They involve the producers themselves in the planning, monitoring and evaluation of the work, with an emphasis on responding to the needs of disadvantaged people, especially women. These interventions aim to increase producers' ability to access, control and make use of productive resources, using technologies appropriate to the local environment in terms of their

scale and complexity, in order to produce the food needed by communities for consumption and sale. The approach advocated by IT supports and promotes diversity in production (ITDG, 1995).

CASE STUDIES

Case Study 1 Local Technological Rearmament: Enhancing Local Food Security in Chivi, Zimbabwe[3]

Chivi district lies in the dry 'lowveld' of Southern Zimbabwe, falling within the land classification of Natural Regions IV and V (suitable only for semi-extensive and extensive livestock farming). Rainfall is erratic and variable, around an average level of 500 mm, with drought striking on average once every three years. In 1991, along with much of the rest of Zimbabwe, Chivi suffered a devastating drought with the almost total failure of the rains.

Chivi is part of the 'communal areas', land designated for use by local African farmers during the colonial era. These areas have remained distinct from the so-called 'commercial sector' ever since. As well as poor-quality land, Chivi also has a relatively high population density, of about 100/km^2, which means average farm sizes of around one hectare. Given the quality of the land and the prevailing climate, farm sizes are not large enough to support a family: the area is in food deficit, and with a population growth rate of 2.8 per cent, the problem of land shortage may increase.

Subsistence cropping and livestock production form the mainstay of life for Chivi's small-scale farmers, supplemented by remittances from relatives working in urban areas. Field crops include millet, sorghum, maize and beans, with vegetable crops grown in riverside gardens. Oxen provide the main draught power, but this resource was severely depleted in the 1991–2 drought when more than 90 per cent of the oxen died.

IT began working in Chivi in 1990, following discussions between Agritex (the Zimbabwean Agricultural Extension Agency) and IT about the need for appropriate technology interventions in the Communal Areas to reduce dependency on food aid. In 1990, two investigatory studies were carried out in the drier parts of the south of Zimbabwe, and based on these as well as on discussions with provincial government staff and Agritex officials, Chivi district was selected for the project area as a district with very marginal land, very poor

infrastructure and very little non-governmental organisation (NGO) or government project activity. Within Chivi district, the initial phase of the project began working with about 1700 households in one ward (Ward 21), primarily through local village-level institutions such as male-dominated farmers' groups and female-dominated garden groups (Murwira, 1994).

The link with local government has been essential for the development of this work. It is only through effective sharing with Agritex that the approach and experiences can be replicated beyond the limits of NGO-supported activity. The project was set up to work with local farmers and gardeners to devise an effective approach to the management of technical change, particularly when government inputs and food aid are falling.

The aims of the project are:

- to help farmers and gardeners identify their needs and strengthen their capacity for maintaining food security at household level;
- to work with local institutions on technologies for food security, building on local traditional knowledge and capacity; and
- to influence agricultural policies to take into account the production needs of small-scale farmers and gardeners.

The approach used in the project has been one of continuous participation of the local community and institutions in project identification, implementation and reflection for future work. The approach used owes much to IT's previous experiences of working with farmers, herders and fisherfolk in other countries and with other NGOs. The main lesson learned has been the enormous importance for sustainability of developing local institutional capacity, and community participation and control.

National, provincial and local government agencies were involved from the earliest stages of the project idea. At the community level, residents of Ward 21 of Chivi district, the initial focus of project activities, participated in the detailed design of the project through contributing their knowledge and experience in community workshops to identify and prioritise their problems and needs. The final project framework reflected their conclusions, which identified the following priority needs:

- water, especially for crop production;
- animal draught and tools;

- crop varieties suitable for dry lands;
- fencing for vegetable gardens;
- pest management, especially in vegetable production;
- dealing with increasing landlessness; and
- community co-operation.

The implementation of the project has responded to these needs, with particular and concurrent emphasis so far on soil and water conservation, drought-resistant crop varieties, fencing and pest management, all implemented through community co-operation. Exploration of animal draught opportunities is in its early stages.

Working with community institutions, IT has facilitated the sharing of existing knowledge and practices, from inside and outside the community, and the analysis of the problems. Sources of alternative knowledge and ideas are identified, and representatives of the institutions explore these and bring them back to the community. A result of this has been an explosion of experimentation by local farmers, turning fields into plots for testing new ideas for soil and water conservation and for planting techniques – row widths, seed spacing, ridge or furrow planting, varietal and species diversity – thus reducing dependence on extension workers as the sole (inadequate) source of technical advice.

A process of technology testing, adaptation and experimentation for particular circumstances is then undertaken by self-selected groups and individual farmers. For example, after visits to the government's Chiredzi Research Station and other projects by representatives of the communities, to find out about soil and water conservation techniques, farmers chose to test tied ridges and infiltration pits the following season. These were built on farms, using collective exchange of labour. Results were then analysed in a reflective process of community review workshops. Over 200 farmers are now using tied ridges and infiltration pits, after concluding that the technology was the most likely to meet their needs. In another case, and following a similar process, over 300 women are now using sub-surface clay pipe irrigation in their vegetable gardens, using their existing pottery skills to make the pipes.

One interesting innovation arising out of this process has been with respect to crop biodiversity. While maize seed was the main constituent of drought relief seed packages issues by government, the area is better suited to drought-tolerant locally-adapted small grains. These have been in short supply and sources of seed were hard to find. In

order to overcome this, Chivi farmers have innovated and organised local Seed Fairs to exchange seeds. In 1994, for example, 500 farmers, including visitors from outside the project area, attended the fair and exhibited and exchanged more than 50 local varieties of millet and sorghum. Further varieties were identified for sourcing from neighbouring provinces. Other fairs have focused on vegetable varieties. These events have proved immensely popular and have formed an important arena for the exchange of local knowledge and strategies for the dynamic conservation, *in situ*, of crop biodiversity.

The process of sharing existing local knowledge, identifying external sources of information, testing, adapting and analysing new technologies is central to the approach taken by the project. It has been followed successfully in other areas of need identified by the community; for example, in drought-resistant crop varieties and pest management. The partnership between the community, IT, Agritex and local research stations has been at the core of the success of the project.

Aside from the purely technical successes of the project, there have been important social impacts. Not only has membership of farmers' and garden groups increased exponentially (over 300 per cent increase over the life of the project) as farmers have experienced them as being useful, but farmers – both men and women – have become much more confident and articulate about the validity of their knowledge, and their capacity to analyse their problems and take control in exploring solutions.

In addition to the technical activities, and directed at the identified problem of community co-operation, IT has also facilitated the participation of many group leaders and community representatives in 'Training for Transformation' courses in partnership with a Catholic training centre, Silveira House. This approach is based on Paolo Freire's psycho-social method of group awareness-raising through popular education. This has been extremely well received by the community, who recommended in their last Community Review that all government extensionists and community leaders should be trained.

A further significant impact of the project has been in the empowerment of women. Moreover, the technical, practical impacts are by no means small. For example, women estimate that, through using the sub-surface clay pipes, they have reduced time spent on watering vegetable plots by up to 400 per cent and reduced the amount of water used by nearly 50 per cent. The gains in productivity of the women's labour have resulted in increased yields. This has had a

positive impact on family nutrition and income through increased consumption of vegetables and the sale of surpluses.

Arguably more important, however, has been the social impact of the project on women. Their participation in their community's development has increased greatly. Garden groups have formed area committees, enabling them to have a voice in decision-making at ward level on a par with the traditionally male-dominated farmers' clubs. Women have begun to take the lead in many community-wide events: for instance, in the last Community Review of the project, it was women who facilitated most of the discussions.

Now that the approach has been fully articulated, it is being tested by Agritex under normal government extension conditions. Agritex has not only sanctioned the extension of the project but is also embarking on replicating the approach in another district of Masvingo Province and other provinces. Chivi farmers have also begun to have a voice outside their community, with participation in radio programmes, films and seminars, and receiving visitors from all over the country and further afield. The approach has also been widely disseminated among national and international development agencies and audiences (for example, see Okali, 1994). Ultimately it is hoped that the evidence produced by the current phase of the project will spread throughout the country and beyond to inform the policies and practices for sustainable community-level food security.

Case Study 2 Re-greening the Forests of the Deep: Experiences in Kerala, South India, with Artisanal Fishing Communities[4]

IT has been involved in fishery work in partnership with a local NGO, the Programme for Community Organisation (PCO) since 1982. The project work is mainly based in Trivandrum district, Kerala State, where work focuses on three main communities of about 500 fishing families and, to a lesser extent, in another eight communities. In total, there are about 130 000 fishermen working from the beaches of Kerala. With family members, there are therefore about one million people in Kerala who depend, either directly or indirectly, on small-scale fishing and related activities.

The communities' fishing grounds have been depleted severely since the 1960s, and the natural reefs, essential habitats for the fish on which their livelihoods depend, are being destroyed by destructive fishing practices. One reason is that in the early 1970s, with distant traditional fishing grounds being closed to them, the Japanese fishing

industry was seeking to import supplies of fish and prawns. This increased demand for fish and prawns encouraged investors in India to purchase shrimp trawlers and develop export markets in Japan. There are now literally thousands of these trawlers fishing in India's coastal waters, doing untold damage to fish stocks and the habitat which supports them.

More recently, as a result of liberalisation policies, the Government of India has opened up the country's exclusive economic zones to joint ventures between foreign and Indian companies. It has issued 170 licences, involving around 800 vessels, but it is not known how many have begun operations. While there seems little chance of an easy reversal of these decisions, no further licences are being issued, thanks to protests from the National Fishworkers' Forum (Kurien, 1995a).

Fishing communities in the south-west of India have witnessed this industrial revolution at first hand. The incursions of trawlers into the inshore waters have caused severe depletion of fish stocks and, more importantly for long-term sustainability, widespread destruction of the marine habitat necessary for the replenishment of stocks through provision of habitats, shelter, protection, food and breeding sites.

The impact of these fishery policies and practices on natural reefs, marine biodiversity and catches by artisanal fishworkers has been particularly pronounced. Local studies have shown that many natural reefs have been destroyed: 150 species of once-common species, including 135 fin fish species, are no longer caught by the artisanal fishworkers, because of severe depletion by uncontrolled trawl fishing for highly priced prawns for export. During the 1970s, overall fish catches declined, and within this the artisanal sector's catches fell to between 40 and 60 per cent of pre-1970 levels (O'Riordan, 1992).

Artisanal fishworkers in the region have responded to this threat in various ways, including by organising themselves into unions and campaigning for more equitable fisheries development policies, through, for example, the recently formed National Fishworkers Forum. Many have also adopted new technology, such as imported outboard motors, to compete more effectively with the trawlers for both fish resources and space on the fishing grounds.

Artisanal fishworkers, however, are limited in their ability to compete in these fishing grounds, handicapped as they are in the all too familiar areas of access to capital, credit, technology, markets and so on (PCO/SIFFS, 1991). While the use of modern technology such as outboard motors (OBMs) may help increase productivity of tradi-

tional fisheries, they also incur significant costs which need to be met. Often, the use of such technologies cause fishworkers to change from traditional selective techniques and adopt more modern 'catch all' methods. Increasing competition from outside investors, who see fisheries as a short-term investment opportunity rather than as a long-term livelihood, can also pressure traditional fishworkers to adopt more intensive and less selective techniques.

The challenge for small-scale and artisanal fisheries, therefore, is to sustain production without undermining traditional nurturing management systems and depleting the resource base. They also need to be protected from fishing practices that prioritise short-term profit over longer-term sustainability.

As a response to this, fishworkers from several villages in the two south-western-most districts of India – Trivandrum in Kerala and Kanyakumari in Tamil Nadu – have been engaged in experimenting with ways of rejuvenating the sea bed and providing for dynamic *in situ* conservation of fish stocks, and thus recovering the fishery. Local NGOs and outside development agencies, including IT, have been working with local fishing communities and adding to their traditional knowledge with concepts and knowledge from other countries.

These experiments have their origins in age-old practices used by fishworkers to attract fish closer to the beach. For example, fishworkers operating 'shore seine' nets traditionally used to dump rocks fastened with coconut fronds on the sea bed to attract fish close to shore. More recently, fishworkers using hooks and lines came to associate wrecks on the sea bed with rich fishing. The fishworkers are also influenced by the traditional belief in the Goddess of the Ocean, who must be treated with respect to ensure that she continues to bestow her favours.

A recent experiment has been to construct artificial fish habitats (AFHs). AFHs, especially artificial reefs (ARs), represent a 'people's technology'. They form a social and technological response to a fishery crisis, and are based on the fishworkers' age-old knowledge and understanding of their marine environment (Fernandez, 1994; Kadappuram, 1990).

During the 1980s fishworkers constructed nineteen AFHs. Materials included locally-available items such as concrete well rings, coconut fronds and tree stumps. Site selection and choice of materials were based on the customary and experiential knowledge of the fishworkers. The early experiments demonstrated the vulnerability of AFHs to monsoon damage, and to being buried in sand and silt. On the

positive side, they also demonstrated that vegetation used in their construction decays, thus providing important *in situ* nutrients.

In 1989, PCO initiated a joint project with representatives from three fishing communities, based on the lessons learned from the early experiments. While the economic costs of the first-generation experiments had been nominal, levels of investment required for this joint project were substantially higher. The new experiments involved the construction of purpose-built AFH modules of bamboo and concrete, followed by their aggregation into ARs. The objectives of the project were to establish three ARs around the villages of Puthiathura, Thumba and Adimalathura. The local NGO raised 50 per cent of the costs, and fishworkers raised the balance (Creech, 1991).

The ARs were established at sites selected by the fishworkers and lowered into position from aboard local kattumaram craft. Systematic studies of their effectiveness were undertaken by PCO in collaboration with IT. In each case, the reefs were acting as fish-aggregating devices, with significantly enhanced catches. It was also found that there was rapid colonisation of the ARs by resident fish varieties. However, there is also a danger that when ARs are used as fishing grounds, increased pressure can be applied to already over-exploited fish stocks. Indeed, ICLARM (the International Centre for Living Aquatic Resources Management) has warned that ARs should not be used as fishing grounds, for this reason. A longer-term strategy therefore needs to be worked out for the way in which ARs are to be used in the future.

The studies of the ARs also showed that the AFH modules were susceptible to 'gliding' in different directions as they were put in position. If ARs were to become anything more than mere aggregating devices, their concentration must be increased, so a system for lowering and accurately placing reef modules on to the sea bed was devised, using a rope and pulley system.

In January 1995 a team of oceanographers from Southampton University visited south India at the invitation of the NGOs and the government. On filming and analysing the ARs, they observed that they are stable and the modules' surfaces are well colonised by marine life, providing protection and food for reef-dwelling fish. The variety of life forms is not as complex as that found on natural reefs, but with time, as the surface of the ARs mature, a greater diversity is expected to develop. Fisherfolk, on seeing the video of the ARs carefully positioned on the seabed and surrounded by fish, have had their impressions of the value of this technology reinforced (Kurien, 1995b).

The experimentation described above is not, on its own, going to solve the problems of artisanal fisherfolk in south India. If large enough – and they would need to be some 10–50 times bigger – ARs can serve as underwater barriers to prevent the encroachment into near-shore waters of destructive fishing gear such as bottom trawls. ARs can also provide refuges for fish, and, if dispersed over wide areas, may provide marine reserves and important breeding and conservation areas.

As a stand-alone technology, ARs are unlikely to form the basis of a viable artisanal fishery in the future. In the context of a liberalised market, fisherfolk are having to cope with rising costs of fuel, motors and other equipment, all of which are now in common use as artisanal fishworkers struggle to compete for fish with larger-scale operations. A consequence of this is that ARs, in themselves, have relatively low priority in fishing communities.

ARs can play a role, however, in fostering awareness of the need to maintain diversity of fish stocks and sustainable fisheries management, at both community and government levels. ARs provide a focus for debate on issues of ownership and control of the coastal commons and on issues of ecosystem rehabilitation. They also have a potentially important role to play in demarcating exclusive community-controlled fishing zones, thereby facilitating sustainable community-based management of fish stocks on a 'harvesting' rather than a 'hunting' basis.

The enthusiastic feedback received from the fishworkers, and the interest shown by other communities in ARs, spurred other local NGOs to participate in further experiments. The South Indian Federation of Fishermen Societies (SIFFS), representing some 6000 fishworkers, also became interested. The news of the success of the ARs has spread and they have been taken up by the Government of Kerala as an instrument involving fishing communities in rebuilding the depleted fishery. The scale of this work is now at least ten times greater than the initial work described above. Interest has also been raised internationally through presentations at fisheries conferences.

The challenge is to enable further local communities of artisanal fisherfolk, who should be guardians of marine resources, to develop such technologies, using participative approaches to technology development, that are environmentally efficient in sustaining fish stocks. This is not enough by itself. There is also a need to develop economic tools that can analyse social and environmental costs, and to develop management systems which fully include community institutions as crucial stakeholders in the preservation of marine resources for the

food security of all. Such tools need to evaluate the economic costs and benefits of investing in certain fishing practices, but at the same time assess the costs of degrading the ecosystem, the costs of lost opportunities for food production and livelihoods, and the costs of reduced amenity values. Such tools need to produce information which outlines the economic, social and environmental footprint of the different investment options.

Through experience gained in this work by IT, its partner NGOs and the fishing communities in south India, the International Collective in Support of Fishworkers (based in India), and the Coalition for Fair Fishing Agreements (based in Brussels), are gaining valuable technical knowledge for use in their campaigns to change national and international fisheries policies. They seek to influence these in favour of sustaining fisherfolk in artisanal fishing communities, and, with them, developing technologies which nurture rather than destroy the resource (O'Riordan, 1995).

CONCLUSIONS

The two case studies provide some evidence of the effectiveness of participatory approaches in developing diverse solutions to problems raised by communities in their use of productive technologies and the dynamic conservation of genetic diversity, *in situ*, for food production. They illustrate the importance of the producers taking the lead in designing alternatives and making decisions. They also provide an insight into the role of the 'outsider' combined with local indigenous knowledge, in this case IT and its partner NGOs working with producers, in facilitating the development and dissemination of ideas, strengthening the communities' ability to cope, and underpinning approaches to policy-makers. Much greater note should be taken of this approach when adjusting policies. In turn these policies should help producers, particularly those that are more vulnerable, to cope with the increased pace of change.

While the two case studies focus on poor communities under threat, these approaches also have some relevance to the maintenance of food production in higher potential areas (Pretty, 1995). The risks posed by wide-scale uniformity, for example of crop varieties, so tragically demonstrated 150 years ago in the destruction of the potato crop in Ireland, are equally present today, as evidence by the spread of a new blight across Mexico and continental USA. Greater diversity of pro-

duction systems and genetic variety would safeguard food security in all production systems. The increasing threat to food security posed by the rapid decline in the diversity of crop varieties, animal breeds and fish species can only be addressed by promoting diverse, locally-developed and locally-controlled food production systems.

Both case studies also illustrate the importance of communal activities in providing labour for agreed work plans, and as a focus for discussion, analysis and resolution of specific community problems. The impact of these discussions is often as beneficial as the production impacts in securing improved access to resources and improved control over production and decision-making. The case studies also emphasise the importance of research based on the expressed needs of the producers. Such research will probably continue to need external public funds, but should be determined largely by the requirements of the food producers themselves.

It is also clear that in each case study the link to policy planners and decision-makers is essential in achieving wider changes. These changes have occurred not only because of the sound, practical evidence coming from the work of the producers, but also because of the influence of the communal actions arising from the work.

There is a particular opportunity, in the later 1990s, to help farmers, herders and fisherfolk in the South to raise these issues in international forums. Parallel and related sets of discussions will be setting the agenda for food security in the twenty-first century. The issues include (with relevant meetings noted in parentheses):

- World Food Security (FAO 50th Birthday celebrations – Quebec, October 1995; World Food Summit – FAO Rome, November 1996);
- Conservation of Plant Genetic Resources for Food and Agriculture, including agreement on apportioning benefit through Farmers' Rights (4th FAO International Technical Conference on Plant Genetic Resources – Leipzig, June 1996);
- Sustainable Contribution of Fisheries to Food Security (for example, in Kyoto, December 1995);
- Implementation of the Biodiversity Convention (Conference of the Parties to the Biodiversity Convention – COPs II, Jakarta, November 1995; COPs III, November 1996); and
- Renewal of an international agricultural research programme through the Consultative Group on International Agricultural Research (for example, during 'Centres Week' – Washington DC, October 1995).

There is the risk that more capital-intensive (and less labour-intensive) and more uniform production systems could gain even greater legitimacy. We argue that such uniformity will increase food insecurity in the long term, especially of the increasing numbers of people who will, as a result, be surviving below the poverty line. These threats need to be countered.

There is an opportunity, however, for more diverse, locally-controlled production systems, which also maintain genetic diversity *in situ*, to become the accepted development paradigm for securing food supplies. The labour-intensive approach described in this chapter is more likely to ensure food security for future generations. It is also more likely to galvanise community action, leading to greater empowerment and control of decision-making. NGOs have a particular task in the near future to ensure that the views of poor food producers are heard in international forums, and that international agreements support locally-controlled and diverse food production systems.

Notes

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2. The dynamic conservation of genetic resources depends on diverse farming systems in which farmers are encouraged and able to carry out active selection of crop varieties and animal breeds best suited to the ecosystem and the needs of people benefiting from that farming system. In fisheries, dynamic conservation of genetic resources depends on nurturing a diverse aquatic environment, which is fished within biological limits.
3. This case study draws on the work of colleagues in IT Zimbabwe, particularly Kudakwashe Murwira, Millie Vela and Ebbie Dengu, and the leaders and innovators in the communities with whom they work, especially in Ward 21 of Chivi district. Much support has also been provided by officials of Agritex at district, provincial and national levels.
4. This case study draws mainly on the work of John Fernandez and John Kurien. John Fernandez was the son of a fisherman by birth, and a teacher by profession. For many years he worked with the Programme for Community Organisation (PCO) as coordinator. Tragically, he died unexpectedly in 1994. Dr John Kurien is Associate fellow at the Centre

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